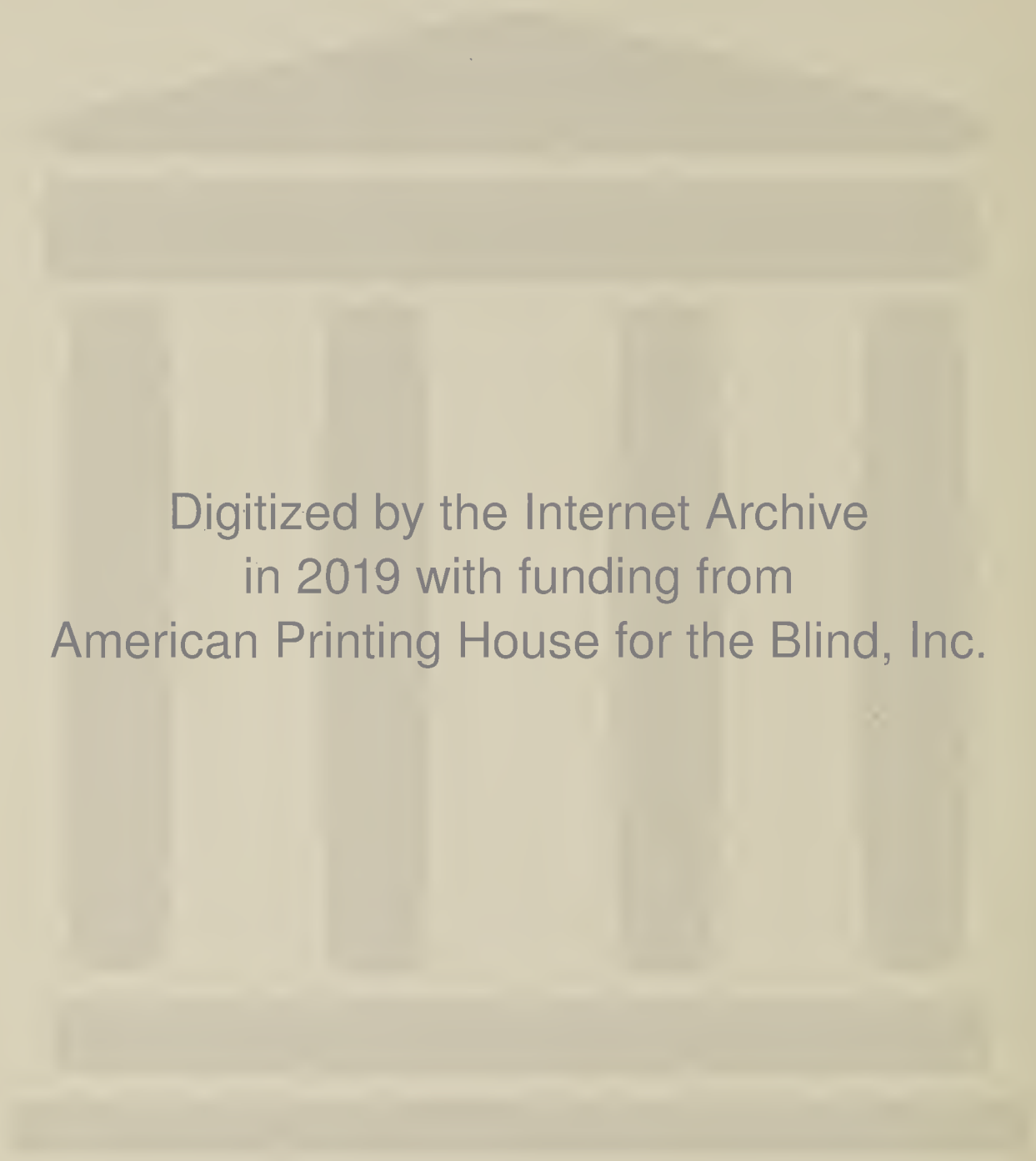


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PREFACE

BLINDNESS 1973 is the tenth issue of an annual published by the American Association of Workers for the Blind. It is designed to provide a forum for important and timely articles - with depth - in our own field and in related fields. Experts in the many categories of work with blind persons are commissioned to conduct the essential research and prepare the articles so that their continuing value will be assured. BLINDNESS should reflect the movement of human thought in respect to blindness and stimulate original thinking and excellence of practice in the field.

Copies of BLINDNESS 1973 are distributed to members of the Association as a function of membership. The Library of Congress, Division for the Blind and Physically Handicapped, will make the annual available through regional libraries in both braille and recorded form.

BLINDNESS 1973

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PLANNING A FUTURE OF IMPROVED LIBRARY SERVICES FOR BLIND AND PHYSICALLY HANDICAPPED READERS

By

Frank Kurt Cylke

A popular and well-accepted public service like the Library of Congress program for blind and physically handicapped readers usually supplies much of its own momentum for increase and growth. But growth alone will not necessarily assure the best program in return for the resources invested in it. The continued renewal and sound operation of even the best public service require long-range planning based on the experience of the past, the best data available regarding present operations, and the best projections that can be made about the future.

Several major factors make a bicentennial-era stocktaking and sound planning on a long-range basis doubly important today for library services for blind and physically handicapped readers. First of all is the growth that the program is experiencing. When the program observes its forty-third anniversary on March 3, 1974, it will have grown from a modest national service of books in braille, primarily for a relatively small number of readers, circulated through a network of 19 cooperating libraries, to a national network of more than 125 libraries serving close to a half million readers. The growth for several years has been at the rate of 10 percent or more. Readers numbered 391,610 in Fiscal Year 1973, an all-time high, for an increase of 18 percent over the total number of readers served the year before. In the last five years circulation has almost doubled from 5.3 million items to 9.1 million items. The library services for blind and handicapped readers are dynamic and expansive, and the growth rate is impressive.

Much of the expansion of the last several years can be traced largely to two events of 1966 - the passage of two significant Federal laws. The first, Public Law 89-522 enacted in July, 1966, made the library services available for the first time to those who could not read print of the ordinary sizes for reasons other than legal blindness - to the amputee, for example, who could not read because he could not hold a book. This law had an immediate and direct impact on the program that showed up in the reader statistics in the ensuing years. The second piece of legislation was the 1966 Library Services and Construction Act amendments which, also for the first time, made Federal grant funds available to State library agencies for the purpose of establishing or improving library services to blind and handicapped persons under approved State plans. These LSCA funds had the salutary effect of strengthening the

national library network for blind and physically handicapped readers at the important base of the pyramid, that is, at the point at which services are closest to the reader. In the years since these LSCA grants became available, the number of regional libraries increased from 34 to 53 and the number of readers from 142,000 to 391,610. If the present rate of growth continues, the network may well be asked to serve close to a million readers before the decade ends. As regional libraries grew and expanded, there was a simultaneous trend toward the establishment of subregional libraries; that is, public libraries providing some services for blind and handicapped readers, many for the first time. Most subregional libraries stock small to medium-sized collections of talking books on disc and cassette, but no braille. Today there are about 75 such subregional libraries bringing service closer to blind and handicapped readers, and their number should increase.

Yet another critical planning factor is the swift pace of change in technologies that impinge upon the program. The Library of Congress demonstrated its innovative approach to these special library services soon after the inception of the national program when it began distributing talking books in 33-1/3 rpm and talking book machines. Neither the long-playing discs now so common nor the machines needed to play them were then available to the public. Then in rather rapid succession in the post-World War II years came discs in ever slower speeds, flexible discs, open-reel tape recordings, cassette tapes, cassette players, and a number of innovative attachments to talking book machines and tape players, all designed to make more reading materials available and to make it easier to read. Among the latest innovations to be explored by the Division for the Blind and Physically Handicapped is a mode of reading that will allow the physically handicapped to use their unimpaired eyesight. Experimental models using microform - microfilm or microfiche - a projector, and a self-contained screen are being field tested so as to determine their feasibility. Innovations in related technology continue to be developed, and the Division continues to consider their application to readers' needs.

A third major factor in planning is the growing demand by the readers themselves. Blind and physically handicapped individuals, like many other groups, are articulating wishes and needs at a rate practically unheard of even a decade ago. Those responsible for public library service designed to meet these patrons' desires and needs must listen and must respond as well as they can within existing constraints.

That the Congress has been listening to the rising tide of demand is attested by the level of appropriations for library services for blind and handicapped readers. The amount of funds has been increased annually to the level of \$9.8 million for the Federal Fiscal Year 1974 (which began July 1, 1973).

DBPH also has been listening and responding. Part of the response has been publicized and is widely known. Another part of the response is less well known for it involves the kind of comprehensive stocktaking and the long-range planning required for a sounder future program, and both are still in the early stages.

In order to continue to provide library service of a high quality to all blind and handicapped readers seeking it, DBPH and cooperating libraries will need to bring every resource to bear on establishing realistic and meaningful goals and objectives. Or, to put it in management terms, there is a need to develop time-phased plans for allocating resources and for specifying successive steps required to achieve stated objectives.

The considerations involved in DBPH's overview also have implications for other programs for blind and handicapped individuals. For example, in common with other agencies, DBPH has long experienced a lack of dependable social indicators. For library services, adequate social indicators would mean knowing with some precision the size of the consumer universe. For several years, the estimate used for the number of individuals eligible for the Library of Congress program was about two million in the Nation as a whole. But when, in 1973, the Division examined all of the data sources available, the estimated eligible population turned out to be three or more times that number. More than seven million probably are eligible for the services. And when allowances are made for some rise in those estimated totals as the population as a whole increases or otherwise changes, it is obvious that planning for a much larger potential readership will differ in kind and character. Yet even with these larger estimates in hand, the data available leave much to be desired. Not only libraries but others working with blind and handicapped persons could use better censuses of those eligible.

A perennial, overriding problem in special library services to this group is that of increasing the number of titles available. Somewhat in excess of 150,000 separate titles in either braille, large type, or recorded form are generally available through the Library of Congress and the cooperating network of regional and subregional libraries. Thousands of other books are produced by volunteer groups, organizations, and agencies in single copies or limited quantities. A sighted reader, on the other hand, has potentially available a total of 40,000 new titles each year! A comparison of these figures - the annual total for sighted readers and the grand total for blind and handicapped readers - graphically depicts the staggering dimensions of the problem.

A new service just authorized by the Congress will aid indirectly in increasing the number of titles available for blind and handicapped readers. It is an automated national bibliographic service, for which \$82,500 was received for Fiscal Year 1974, to develop a blueprint and lay the foundation. When completed, the service will enable a librarian anywhere in the Nation to quickly determine the availability of a title in a format usable by blind and handicapped readers. It will take five years to bring this service to full operational status. But when it does become available, the automated bibliographic service will be a valuable saving in preventing duplication by volunteers who, instead of brailleing or taping books already available, can spend their time producing heretofore unavailable titles. It will also result in a valuable saving of time of library staffs - time that personnel can then spend advising readers and seeking out new ways to produce additional reading material.

The new service, however, will not be perfect. We will still have many problems in meeting the needs for service. There still will be, for example, the dearth and the expense and the importance of braille. Because technology in the production of braille has not kept pace with the other technologies impinging on the library program, the unit cost for a braille title remains disproportionately high. Deaf-blind individuals are particularly dependent on the tactile medium. As one such DBPH employee expresses it, "We are dependent on braille; life would be not only silent and dark, it would also be very empty without it. To me, in many instances, it takes the place of a friend to converse with. Loneliness doesn't exist when I have a book in my lap or in bed with me." A thorough review of DBPH policies and practices in the production of braille materials is under way.

The Division recently instituted the policy of making any given title available in only one format, either in braille or on talking book disc or cassette tape. That change will result in some increase in the total number of titles available to readers, although the increase will not be a large one because the degree of duplication has been small.

Increased cooperation among and coordination of volunteer groups producing library materials is another avenue being aggressively explored so as to assure a greater amount of reading materials for users. The tradition of cooperation among libraries for the blind and handicapped, voluntary organizations in the field, and individual volunteers has been a paramount ingredient in the success of the Books for the Blind and Physically Handicapped program and it is Library of Congress policy to strengthen and reinforce these integral interrelationships.

In its stocktaking, the Division not only is looking at external resources but is also assessing internal capabilities. Arrangements were made for DBPH to participate, beginning in 1973 and continuing into 1974, in the Management Review and Analysis Program developed by the Association of Research Libraries. The program is a seven-month self-study and only one of several such analyses planned of management practices and procedures in order to assess present capabilities in light of potential requirements. Yet another study is being conducted by outside consultants under contract to the Library of Congress to assist the Division in developing a decision model for both hardware and software utilized in the program; i.e., playback equipment and talking books and cassettes. Such a model would allow the Division to decide on the most economical, standardized equipment and materials of greatest use to blind and handicapped readers. In other words, it would facilitate the wisest use of resources available for the purpose.

Yet another boon to improved services will be the two multi-State centers authorized by Congress for Fiscal Year 1974. Contracts will be awarded before July 1, 1974, for the establishment and operation of these centers as storage areas and distribution depots. This new kind of facility is an attempt to handle the storage and logistics problems in supplying the cooperating libraries in the network. DBPH buys large quantities of playback equipment and other materials needed by or for readers so as to obtain competitive and reasonable prices, and housing the material has become a growing problem. The multi-State centers will

accept, house, and ship to regional libraries or designated agencies such items as playback equipment, catalogs for readers, and some reading materials. One of the most important services that the centers will provide is the housing of complete collections of older titles on records, tape, and braille. So even though regional and subregional libraries do not have the unlimited space required for these older materials, the multi-State centers will make it possible to have them within reasonably short shipping distance for the times when they are wanted and needed by readers. The new centers will also provide space for repair shops for talking book machines, an important task most often undertaken as a voluntary project by local chapters of the Telephone Pioneers of America.

Shortages, some resulting from the 'energy crisis, will most likely affect library services for blind and handicapped readers. The pinch is already being felt in the dearth of electronic components for playback equipment, plastics used in disc production, paper products, and other materials. Short supplies will definitely sometimes mean waiting for a longer time to receive orders of books and magazines and players. The long-range effects cannot be calculated until more is known about the extent of the shortages.

Cooperating libraries for blind and physically handicapped readers compose a unique service network coordinated by the Library of Congress. The network has been performing at a high level under some trying circumstances. DBPH as the network coordinator will continue efforts to develop cooperative planning so that all of the libraries in the network will be able to assume their respective, appropriate responsibilities. At the same time, new approaches to funding of services provided by network participants will be explored. The overriding goal is to provide a high quality of service to all eligible blind or physically handicapped individuals who wish to receive it on an equal basis. All of the services exist to fulfill the right of the blind and the handicapped not only to read but to have access to reading material that is adequate both in quantity and in scope.

THE DEVELOPMENT OF A CODE OF ETHICS
FOR
ORIENTATION AND MOBILITY SPECIALISTS

By

William R. Wiener, Chairman

Richard Welsh, Ph.D.
Assistant Chairman
Everett Hill
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Robert Mills
Gerald Mundy

Toward the end of 1972, an ad hoc committee was appointed by the chairman of Interest Group #9 of the American Association of Workers for the Blind for the purpose of considering the formulation of a code of ethics for orientation and mobility specialists (peripatologists). The ad hoc committee embarked on a project which led, eventually, to the adoption of a code of ethics by Interest Group #9.

Early History

The committee, once established, began examining the concept of a code of ethics and the various reasons other professions have felt it necessary to establish such codes. Early history indicates that codes of ethics evolved after the formation of early associations. Guilds of the medieval towns and cities were the forerunners of modern professional associations. They established policies and procedural practices of apprenticeship. This allowed members of the guild gradually to improve their knowledge and gain proficiency leading to higher career gradings. In doing so, the guilds set standards of technical competence and personal conduct for their members.¹

In discussing contemporary codes of ethics, Professor A. M. Carr-Saunders states that "a survey of the history of professions in modern times . . . shows that when a profession becomes clearly defined, the competent and responsible practitioners form an association, two of the chief objects of which are to bring up the qualifications of all those who hold themselves out as practicing the craft to a certain minimum

¹Max Weber, General Economic Histories, translated by Frank H. Knight (New York, 1961), pp. 110-15.

standard and to enforce rules of honorable conduct."² Thus we see that as professions become more defined they form associations which generally lead to the formation of rules of conduct.

If we look at a well defined profession, we will find several essential elements present.³ In the emerging profession each of these elements is acquired and associated with the various stages of development.

These stages begin with the accumulation of specialized knowledge emanating from clinical and experimental sources. This information grows into an internally consistent system called a body of theory. Once such a body of knowledge exists, specializations arise for the purpose of applying this knowledge. This information is then disseminated to practitioners through specially developed training programs at the university level. Gradually, as research is conducted, a literature begins to evolve. At this point in time, voluntary associations are organized. Initially, these voluntary associations are formed so that practitioners who have common interests can pursue their common purposes. The criteria for membership becomes a self-identified interest or practice. Later, associations are concerned with technical qualifications. Through the associations, standards of technical competency are outlined and admission into the professions is regulated through a certification procedure, the purpose of which is to upgrade the quality of the services being rendered.

One of the final stages in the development of the profession is the establishment of a code of ethics. Practitioners in a specific discipline have access to specialized knowledge not generally available to the public. Because of this, the consumer of the service is not always able to evaluate the caliber of service rendered. A code of ethics is, therefore, needed to insure the well being of the consumer by setting rules of conduct through self-discipline of the profession. Historically, peers have been the most competent judges of both technical qualifications and such rules of conduct. Professional organizations have utilized peers' evaluation to guarantee the continuing commitment to the rules of conduct.

Development of Orientation and Mobility as a Profession

If we compare the field of orientation and mobility (peripatology) to the classical model of the emerging profession, we find that orientation and mobility has followed closely in this evolution process. In 1943, during the Second World War, two army hospitals became special treatment centers for the blinded soldiers. At one of these hospitals, Valley Forge

²A. M. Carr-Saunders, Professionalization, ed. by Howard M. Vollmer and Donald L. Mills (Englewood Cliffs, New Jersey, 1966), p. 6.

³Ernest Greenwood, "Attributes of a Profession," in Social Work, Vol. 2, No. 3 (July, 1959), pp. 44-55.

General Hospital in Phoenixville, Pennsylvania, a highly successful rehabilitation program evolved. From this program and a later post-war program conducted at Hines Veterans Hospital near Chicago, a large amount of knowledge and skill accumulated in the area of orientation and mobility training. In 1959, a National Conference on orientation and mobility was held for the purpose of deciding how to train teachers of orientation and mobility. Out of this conference grew the university training programs.⁴ Orientation and mobility thus developed a practical means of transmitting the specialized knowledge to practitioners. Gradually, as a result of meetings, writings, and research, orientation and mobility developed a literature of its own. Eventually, a voluntary association formed within the American Association of Workers for the Blind and was called Interest Group #9. In 1968, Interest Group #9 adopted certification standards and procedures designed to insure that practitioners possess certain minimum standards of competency. In 1972, orientation and mobility took one of the final steps in the classical evolution of a profession; consideration of a regulative code of ethics.

Development of the Orientation and Mobility Code of Ethics

The process of considering the formulation of a code was begun by evaluation of the practitioners' perception of the need for such a code. To make this assessment a questionnaire was sent to all members of Interest Group #9, including all certified orientation and mobility specialists. The questionnaire was designed with a two-fold purpose; it was intended first to determine if a code of ethics was desired and, if so, to obtain information which could be used in formulating such a code. The committee called upon several codes of ethics of other organizations to help form the basis of the questionnaire. We presented many ethical points in the questionnaire and asked each respondent to comment on them, stating which of those points (or any other points) they would like included in the code. In addition, we solicited critical incidences of unethical behavior from which principles could be inducted. The response to the questionnaires indicated overwhelming support for establishing a regulative code of ethics. A draft of the code of ethics and enforcement procedures was next written with the principles directly reflecting the consensus of the respondents. The draft was published in the Long Cane News, inviting additional feedback from the field. On July 22, 1973 at the American Association of Workers for the Blind Bi-Annual Convention in Cleveland, the code was presented and discussed with the membership of Interest Group #9. During the meeting revisions of the code were suggested and made. Later during the Convention, Interest Group #9, at a business meeting conducted on July 25, 1973, adopted the Code of Ethics for Orientation and Mobility Specialists. The enforcement procedures were tabled for future consideration at the 1975 AAWB Bi-Annual Convention.

⁴Martha J. Ball, "Mobility in Prospective," in AAWB Blindness Annual (Washington, D.C., 1964), pp. 130-35.

Conclusions

It was previously mentioned that the basic benefit from a code of ethics is the protection afforded to the consumer of the service. In addition to protecting the consumer, there are many other benefits which arise out of the development of the code of ethics. Orientation and mobility specialists have a clear statement of what is acceptable practice to which they can commit themselves in the day-to-day rendering of services. Administrators have a guide which acquaints them with what orientation and mobility specialists can be expected to undertake. This will help facilitate administrative decision making as it relates to the service. The profession itself gains much from the code of ethics. Through the code a commitment to public welfare is expressed. Once this is a matter of public record, the profession acquires the confidence of the community. Finally, from the code of ethics, orientation and mobility receives confidence and respect from other professions, facilitating the healthy exchange of ideas and an interdisciplinary approach to rehabilitation.

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Codes of Ethics from the following organizations:

- American Association of School Administrators
- American Dental Association
- American Medical Association
- American Occupational Therapy Association
- American Personnel and Guidance Association
- American Physical Therapy Association
- American Psychological Association
- American Speech and Hearing Association
- Council for Exceptional Children
- National Association of Social Workers
- National Educational Association
- National Rehabilitation Counselors Association

CODE OF ETHICS
FOR
ORIENTATION AND MOBILITY SPECIALISTS

(Adopted by Interest Group #9 of the American Association
of Workers for the Blind, July, 1973)

Preamble

Orientation and mobility specialists (peripatologists) recognize the significant role that independent movement plays in overall growth and functioning of the individual and are dedicated to helping each individual attain the level of independence necessary to reach his full potential. Orientation and mobility specialists gather, develop, and utilize specialized knowledge in accomplishing this goal. As with all professions, the possession of special knowledge obligates the practitioner to protect the rights of the individuals who must avail themselves of the particular service. To assure the public of our awareness of this obligation, we commit ourselves to this code of ethics.

In order to fulfill this obligation orientation and mobility specialists pledge themselves to standards of acceptable behavior in relation to the following five commitments:

Commitment to the Student
Commitment to the Community
Commitment to the Profession
Commitment to Colleagues and Other Professionals
Commitment to Professional Employment Practices

It is the duty of each orientation and mobility specialist to adhere to the principles in the code and encourage his colleagues to do the same.

1. Commitment to the Student

- 1.1 The orientation and mobility specialist should value the worth and dignity of each individual.
- 1.2 It is the responsibility of the orientation and mobility specialist to strive at all times to maintain the highest standards of service by providing instruction in accord with procedures indicated in section S-3 of The Comstac Report and in accord with the physical,

personal, and professional qualifications accepted as the criteria for certification by Mobility Interest Groups of AAWB and AEVH.

- 1.3 The orientation and mobility specialist should take all reasonable precautions to insure the safety of his student and to protect him from conditions which interfere with learning.
- 1.4 The orientation and mobility specialist should respect the confidentiality of all information pertaining to the student. He must not divulge confidential information about the student to any individual not authorized by the student to receive such information unless required by law or unless withholding such information would endanger the safety of the student or the public.
- 1.5 Before beginning lessons with the student, the orientation and mobility specialist should make every attempt to obtain and evaluate information about the student which is relevant to the orientation and mobility training.
- 1.6 The orientation and mobility specialist should respect the right of the student to participate in decisions regarding his training program.
- 1.7 Decisions regarding continuing or discontinuing training should be made with the student and should be based upon objective evaluation of the student's needs, abilities, and skills. These decisions should be made independent of personal or agency convenience.
- 1.8 The orientation and mobility specialist should provide sufficient information regarding the various types of orientation and mobility guidance devices and should explore with the student which device will best meet his needs.
- 1.9 The orientation and mobility specialist should seek the support and involvement of the family in promoting the student's training goals and in advancing his continued success. This should include sharing information with the family that will facilitate the student's welfare and independence, but not communicating information which violates the principles of confidentiality. The orientation and mobility specialist should not change training objectives upon suggestion of the student's family if the specialist's professional judgments would be compromised.
- 1.10 The orientation and mobility specialist should ask the consent of the student before inviting others to observe a lesson or before arranging to have the student photographed or tape recorded.
- 1.11 The orientation and mobility specialist should make all reports objective and should present only data relevant to the purposes of the evaluation and training. When appropriate, he should share this information with the student.
- 1.12 It is good practice to consult with another orientation and mobility specialist when assistance is required in evaluating students.

- 1.13 The orientation and mobility specialist should endeavor to provide all individuals involved with the students with sufficient knowledge, training and experiences relative to orientation and mobility so as to facilitate the goals of student.
- 1.14 The orientation and mobility specialist should not dispense or supply orientation and mobility equipment unless it is in the best interest of the student.
- 1.15 The orientation and mobility specialist should not allow consideration of his own personal comfort or convenience to interfere with the design and implementation of necessary travel lessons.
- 1.16 The orientation and mobility specialist should be responsible for services to students referred to him and should provide adequate ongoing supervision when any portion of the service is assigned to someone else. He should not assign to a less qualified person any service which requires the skill and judgment of the AAWB certified orientation and mobility specialist. Such duties or services may properly be assigned to interns or student teachers who are enrolled in orientation and mobility university programs with the understanding that each individual will function under strict supervision.
- 1.17 The orientation and mobility specialist should make every attempt to see that follow-up service is provided at the completion of training.

2. Commitment to the Community

- 2.1 The student should not be refused service by the orientation and mobility specialist because of age, sex, race, religion or national origin.
- 2.2 The student should not be excluded from service because of the severity of his disabilities unless it is clearly evident that he cannot benefit from the service. The orientation and mobility specialist should attempt to influence decision making which establishes the rights of individuals to receive service.
- 2.3 The orientation and mobility specialist should contribute to community education by defining the role of orientation and mobility in the community, by describing the nature and delivery of service, and by indicating how the community can become involved in the educational and rehabilitation process.
- 2.4 The orientation and mobility specialist should not engage in any public education activity that results in exploitation of his students. Exaggeration, sensationalism, superficiality and other misleading activities are to be avoided.
- 2.5 The orientation and mobility specialist should strive to remedy those deficiencies in services that exist in the community.

- 2.6 The orientation and mobility specialist should encourage and participate in agency or school accreditation.

3. Commitment to the Profession

- 3.1 The orientation and mobility specialist should seek full responsibility for the exercise of professional judgment related to orientation and mobility.
- 3.2 To the best of his ability, the orientation and mobility specialist should accept the responsibility throughout his career to master and contribute to the growing body of specialized knowledge, concepts and skills which characterize orientation and mobility as a profession.
- 3.3 The orientation and mobility specialist should interpret and use the writing and research of others with integrity. In writing, making presentations, or conducting research, the orientation and mobility specialist should be familiar with and give recognition to previous work on the topic.
- 3.4 The orientation and mobility specialist should conduct his investigations in a manner which takes into consideration the welfare of the subject, and report research in a way as to lessen the possibility that his findings will be misleading.
- 3.5 The orientation and mobility specialist should strive to improve the quality of his service and promote conditions which attract suitable persons to careers in orientation and mobility.
- 3.6 The orientation and mobility specialist should, whenever possible, support and participate in local, state, and national professional organizations.
- 3.7 The orientation and mobility specialist should comply with professional practice in making known his availability for professional services.
- 3.8 The orientation and mobility specialist should accept no gratuities or gifts of significance over and above the predetermined salary or fee for professional service.
- 3.9 The orientation and mobility specialist should not engage in commercial activities which result in a conflict of interest between these activities and his professional objectives with the student.
- 3.10 The orientation and mobility specialist involved in development or promotion of orientation and mobility devices, books or other products, should present such products in a professional and factual way.
- 3.11 The orientation and mobility specialist should expose incompetence, illegal, or unethical behavior.

- 3.12 The orientation and mobility specialist should strive to provide fair treatment to all members of the profession and support them when unjustly accused or mistreated.
- 3.13 Each member of the profession has a personal and professional responsibility for supporting the orientation and mobility code of ethics and maintaining its effectiveness.

4. Commitment to Colleagues and Other Professionals

- 4.1 The orientation and mobility specialist should engage in professional relationships on a mature level and should not become involved in personal disparagement.
- 4.2 The orientation and mobility specialist should communicate fully and openly with his colleagues in the sharing of specialized knowledge, concepts, and skills.
- 4.3 The orientation and mobility specialist should not offer professional services to a person receiving orientation and mobility instruction from another orientation and mobility specialist, except by agreement with the other specialist or after the other specialist has ended his work with the student.
- 4.4 When transferring a student, the orientation and mobility specialist should not commit a receiving specialist to a prescribed course of action. The receiving specialist should take the student's former training into consideration when developing a continued plan for training.
- 4.5 The orientation and mobility specialist should seek harmonious relations with members of other professions. This should include the discussion and free exchange of ideas regarding the overall welfare of the student and discussion with other professionals regarding the benefits to be obtained from orientation and mobility services.
- 4.6 The orientation and mobility specialist should not assume responsibilities which are better provided by other professionals who are available to the student.
- 4.7 The orientation and mobility specialist should seek to facilitate and enhance a team effort with other professionals. In such situations where team decisions are made, the orientation and mobility specialist should contribute information from his own particular perspective and should abide by the team decision unless the team decision requires that he act in violation of the code of ethics.

5. Commitment to Professional Employment Practices

- 5.1 The orientation and mobility specialist should apply for, accept, or offer a position on the basis of professional qualification and should conduct himself with integrity in these situations.

- 5.2 The orientation and mobility specialist should give prompt notification of any change of his availability to the agency or school where he has applied.
- 5.3 The orientation and mobility specialist seeking to hire other specialists should give prompt notification of change in the availability or nature of a position.
- 5.4 The orientation and mobility specialist should respond factually when requested to write a letter of recommendation for a colleague seeking a professional position.
- 5.5 The orientation and mobility specialist should provide applicants seeking information about a position with an honest description of the assignment, conditions of work, and related matters.
- 5.6 The orientation and mobility specialist should abide by the terms of a contract or agreement, whether verbal or written, unless the terms have been falsely represented or substantially changed by the other party.
- 5.7 The orientation and mobility specialist should not accept positions where proven principles of orientation and mobility practice are compromised or abandoned, unless he accepts the position with the intention of amending or modifying the questionable practices and providing that he does not participate in the behavior which violates the code of ethics.
- 5.8 The orientation and mobility specialist should adhere to the policies and regulations of his employer except where they require him to violate ethical principles indicated in this code. To avoid possible conflicts, the orientation and mobility specialist should acquaint his employer with the contents of this code.
- 5.9 The orientation and mobility specialist who intends to resign from his position should give his employer sufficient advance notice and leave his work in such a way as to allow his successor to continue effective service.
- 5.10 The orientation and mobility specialist may provide additional professional service through private contracts, as long as these services remain of the highest quality and do not interfere with the specialist's regular job duties.
- 5.11 The orientation and mobility specialist should not accept remuneration for professional instruction from a student who is entitled to such instruction through an agency or school, unless the student, when fully informed of services available, decides to contract privately with the specialist.
- 5.12 The orientation and mobility specialist should establish a fee for private contracting in cooperation with the contracting agency or school that is consistent with the reasonable and customary rate of that particular geographic region.

- 5.13 When providing additional service through private contracts, the orientation and mobility specialist should observe the agency or school's policies and procedures concerning outside employment including the use of facilities.

THE DEVELOPMENT OF THE SERVICE DELIVERY SYSTEM FOR BLIND PEOPLE*

By

Joseph Kohn

The earliest organized services to the blind in this country were educational in nature and were marked by the advent of residential schools for the blind. The first three of these were established in the 1830s: in Boston where Perkins School for the Blind had its origin; in New York City, where the New York Institute was founded, and in Philadelphia with the school which is now Overbrook.

Services to rehabilitate adults followed. Dr. Samuel Gridley Howe opened the first workshop for blind adults in Boston in 1840 and a number followed. These shops generally took the form of a working home combining residence and work although Howe issued a stern warning condemning the segregating aspects of the combination in 1849. Examples of these are the Industrial Home for the Blind in Brooklyn, New York and the Philadelphia Working Homes. One for blind women opened in 1868 and one for blind men in 1870.

State Commissions for the Blind sprang up just before and after the turn of the century. Connecticut's dates from 1893, and was the first. Once the concept was pioneered nearly every State soon developed a separate agency to serve the blind.

But more interesting than such beginning structures are the gradual changes in purpose and attitude that took place. The Perkins School of 1830 sought to demonstrate that blind children could learn and be educated. Not many people in the United States believed this. The working homes and shops originated as demonstration workshops and tended to become segregated places of employment, because the public at first did not readily accept the fact that a blind person could work competitively. In the workshops, blind people devoted themselves to hand manufacture from which stems our chair caning and brooms and basketry. It is sad to see how long these occupations have persisted in certain areas and continue to do so even today despite marvelous new wood and plastic and metal consumer items that are in demand. Workshops have expanded to include other items of

* Presented at Annual Meeting of New York State Federation of Workers for the Blind, Utica, New York, 10-11-73, Revised March 4, 1974.

manufacture and so emerged into the current era of contract systems with government and industry.

Nonetheless, other forces were at work encouraging competitive employment for blind people. Mr. S. M. Green of the Missouri School for the Blind at the Second Triennial International Conference on the Blind in Manchester, England in 1908 reported that based upon the 1900 U. S. Census, there were 64,763 blind people in the U.S. and that 60% were over 50 years of age, a distribution which has lately been rediscovered. Mr. Green wrote in his report:

The 38.5 per cent of working age gives 24,920 of whom 10,668 are women. 12,506 are engaged in profitable occupations; 891 as farmers, planters and overseers; 766 as musicians and teachers of music; 206 as merchants and dealers, while 75 are teachers and professors in college; 545 are labourers; and 416 are agents. For the adult blind, there are five industrial homes and six shops with nearly 600 workers. . . .

Thus at the turn of the century 10,000 blind people were said to be employed outside of sheltered employment.

Liborio Delfino, a pioneer placement specialist in the State of Pennsylvania, starting in 1904 and working first for the Overbrook School for the Blind, was able to place hundreds of other blind people. His "indomitable technique in getting jobs earned admiration amounting to reverence in the workers for the blind who were his contemporaries."*

In the 1920's and 1930's Joseph Clunk, later the first Chief of Services to the Blind in the Federal Government, spearheaded the selective placement of blind people in Canada and the United States. His demonstration techniques coupled with manpower shortages during World War I established rather firmly in the minds of the public that blind people could work alongside sighted people on an equal basis.

Along with the development of public agencies for the blind came a very substantial development of private agencies each seeking to meet local or specialized needs not elsewhere available or not readily available. Today there are between 600 and 700 such private agencies exclusively concerned with serving blind people in one or more service areas.

1935 brought the Social Security system of public assistance and public insurance was a milestone in the field of human services. Not only was financial aid now available to the indigent blind but also social services. In 1943-44 Federal funds were made available for the first time for the vocational rehabilitation of the blind person, even though many public and private agencies for the blind had been placing blind people in jobs since the turn of the century. The real impact of the Vocational Rehabilitation Act was the impact of money. Federal money was now available to expand staff - to serve more people - and to purchase

*"History and Philosophy of Work for the Blind," in Social and Rehabilitation Services for the Blind (Bledsoe, C. W., Charles Thomas Co. 1973).

service from training centers, private agencies, workshops, schools, colleges, and the like. Little wonder that the training and placement of blind people was sharply accelerated. In 1954 physical restoration services were added and people running agencies for the blind began to think and talk about "comprehensive services" and serving the whole individual, something which here and there, many agencies had been doing (or trying to do) for some time. Indeed from 1830 to 1972 the total concentration of schools and agencies serving the blind were on peoples needs.

Such is the framework for viewing the current and developing service delivery systems. There are many other factors contributing to our present thinking about services. A few need to be mentioned: The Randolph-Sheppard Act and the development of the Vending Stand Program; mobility training for blind people; the advent of the Talking Book machine; prevention of blindness programs; public school education of the blind; geriatric surveys and studies highlighting the needs of elderly blind people who are homebound; Dr. Robert Scott's book which alleges that agencies victimize blind people rather than free them; the whole consumer movement in which blind people just as any other minorities are speaking out and asking to represent themselves; the retrolental and Rubella epidemics; the heightened concern with public attitudes; NAC, etc.

As described here, we have moved from a time when we had to demonstrate that blind children were educable and blind adults able to work into an era where most people believe this and nearly all blind children can have provisions made for their education and nearly all blind adults who can work do so. We have been, for some time, nearing a crest period in services to people in which a re-thinking of our needs and goals are indicated. Secretary Elliott Richardson in his January, 1973 report on HEW called "Responsibility and Responsiveness" identified this same need. He felt that there was a developing crisis in the human services field which he identified as:

1. A crisis of performance - not living up to expectations, and
2. A crisis of control - the snowballing effect of programs.

This is also a period of confusion and mixed signals on solutions. And there is some question whether agents and agencies serving blind people have moved sufficiently with the times and are doing a quality job. There is some question whether we have too many small agencies dissipating their energies with limited service capacities which result in cocoons of service rather than new experiences and new opportunities. Let us examine some of these issues.

I. The general vs. the specialized agency.

My position on this issue is specific and clear. I cannot conceive of blind people being served adequately except by a specialized agency for the blind which provides or purchases services. Services to blind people have to be comprehensive in nature to be effective. And the average

so-called general or umbrella agency is actually involved with a more limited area of service such as social services or health payments, or vocational rehabilitation or with divisions of these areas. They are really not generalist agencies in the sense of being comprehensive. Actually they are co-ordinators or very large specialist agencies themselves. Although larger in size, they are narrower in service function. Agencies for the blind divested of their independent structure merely become bureaus in such larger agencies and have less impact and opportunities for innovation, growth, and budgetary support based upon program merit. Most of all they become lost in the bureaucratic maze and red tape. There is a definite drift in this direction. The agency for the blind which is inefficient or small, or has developed its programs chiefly around the vocational rehabilitation funding process is vulnerable to absorption into the general vocational rehabilitation agency or other agency as a bureau. Examples of this abound and include such States as Florida, New Hampshire, Utah, and very likely Vermont, to name a few.

But the agency for the blind remains an anomaly to the general agency however able the Director and staff. They are not geared to Home Teaching, or the peculiar geriatric problems, or prevention of blindness, or the needs of preschool blind children, or school age blind children. Even vending stands and mobility instruction and Home Industries programs may be unusual or strange. Most of all as a problem is the gradual attrition that occurs while the agency for the blind, now a bureau, is molded to resemble the needs of the general agency rather than the needs of the people it should serve. Budget-wise and particularly when cuts are made, the bureau for blind services will suffer. Given a choice on cutbacks every general administrator will inevitably want to salvage his basic program first and his special programs last. Blindness programs with some exceptions are likely to become the "last pig in the litter." One of the exceptions to this occurred in New Hampshire where as a result of combining, the agency for the blind budget went up sharply because of the interest of a liberal administrator and the budgetary neglect of the agency for the blind for many years. Many factors can cause such neglect but certainly poor management can be one of them. However, it remains to be seen if this will not be short-lived.

II. Decentralization.

The most insidious development in our time is the concept that "I can do everything you can do better," provided all services to people and service decisions are brought under one roof. It follows from this that the large umbrella agency sets up regional or community offices. Considerable decision-making authority is moved from the large central agency such as a Department of Human Services to the regional office director. Categorical services are terminated and generalist Counsellors are developed to serve all or most human services needs such as employment services, social services to welfare clients, vocational rehabilitation services to the disabled, services to the elderly, services to the blind, etc. The mix would depend upon the program array and variations in individual States.

Obviously, bringing services closer to the people to be served is good. The real problem is the gap between the ideal and the real. How

many professional staff are able to know and cope with the involved multiple programs assigned to him or her in such a setting. We may need a whole new generation of training of Counselors to develop such generalists. And what will they be functionally? Information givers? Co-ordinators? Deliverers of Service? Purchasers of Service? Will they authorize funds to the client so that he can decide for himself where to purchase services as some sociologists and government planners suggest? The generalist Counselor's role is not clear. The danger will be that he will become a factotum - a bureaucrat. While geographically closer to clients he may become administratively more distant and less involved with the client.

California, Pennsylvania and more recently Arizona have committed themselves to the decentralized approach by having one-stop regional service offices. I don't know about California but my friends in Pennsylvania tell me it is not working well. Certainly, services to the blind at the State level have suffered and the growth rate that was formerly displayed has gone in reverse. The general impression is that services to blind people in that State are floundering.

One of the riders on this program in terms of Federal advance thinking represents a basic change in service delivery under the premise that this will be more economical and more effective. In vocational rehabilitation a medical component, a training component, and a counseling component have been identified. One proposal suggests that the medical should be handled by expanding Medicaid and the training component by inclusion in an over-all Federal resource BEOG. Eligible individuals would go to these Federal systems and be evaluated for eligibility for medical or training on a needs test basis. This would give the individual client funds to purchase his medical care and training from existing facilities. I see no problem with the medical but the application of the training idea rules out comprehensive planning with the individual client and a host of problems surrounding the less able client and his selections and needs plus availability of facilities. Moreover, the needs test for training may be lower than now in effect in many States so as to require blind people and their families to pay for training costs. Traditionally, vocational training (with the possible exception of college training) has not been a needs test item in the vocational rehabilitation program. If imposed, there is a good chance that it will be a substantial deterrent on numbers of blind people and their families accepting training.

There is no evidence available, as yet, to determine whether clients will be better served in such agency settings. The present client-Counselor relationship could change radically so that the counseling process will be general and perhaps uninformed or operated piece meal by different government agencies. It may result also in a considerable increase in the use of private agencies or specialists to provide services on a fee for service arrangement. This will make standards of service and results of service (or accountability) a more diffused problem in future years than it is today. One question that is likely to arise will be how will emergency needs be met? Will local agencies develop to take care of this or is there a greater need for planning units on the staff of State agencies to study, forecast, and assist in developing new programs? What of the blind client going to one agency for medical, another for vocational

counseling, and still another for college training? Is this appropriate for the least mobile group in our population?

Will we be making the same mistakes that were made in the public welfare field? From the 1940's to the 1960's Federal and State requirements guaranteed no control of the client's money grant. It was his alone. Welfare was considered a right of the unfortunate. But it wasn't until recent years that the government began to cry "foul" and complain about chiselers, ineligibles and sizable fraud. Will the same thing happen with the decentralized regional programs anxious to give the services mandated by law but never thoroughly acquainted with the individual client and the range of his needs. What will happen to comprehensive services to blind people? How do you take care of crisis situations? Who helps the dependent or most severely disabled client?

I take the position that for the largest number of blind people who come to the agency for the blind comprehensive services on an individual basis are a must. If we don't treat or serve the whole client, we will not be truly helping blind people to make their way in society. Concern and advocacy are as essential today in work for the blind as they were in the 1830's. If advocacy is not maintained, only the exceptional blind person will succeed and he is no more numerous than the exceptional sighted person.

I take the position that specialized services for blind people are an essential need. Whether these are provided by the State agency or purchased is not an either or issue. It needs to be determined in each State according to its available resources so that the State agency provides those services not available in the community on a quality basis. But the States must take the role of planning and providing for comprehensive needs not readily available elsewhere. If it does this and does it well, it will be fulfilling its historical role and the momentum of full acceptance and participation of blind people in society will continue. If it doesn't do it, someone else will because blind people, their friends and relatives will demand it; or work for the blind will reverse and begin to decline.

Let me turn at this point to the RSA Long-Range Planning report to HEW for fiscal 1975-79 which presents five (5) options for the Federal role in vocational rehabilitation:

1. Continue the present authority combining basic formula grants to the States with expansion grants and other discretionary instruments for capacity building, tryout and innovation.
2. Have a modified system with some categorical emphasis on special disabilities as in Senate Bill 8395.
3. Establish a combined social service revenue sharing system with an allocation for the handicapped. This would involve continued basic grants and discretionary funding but with less Federal control.

4. Turn over all the funds to the States and have them develop their needs.
5. Change the structure of delivering services to the employment-bound and other handicapped. One might consider a voucher or loan/grant program with market-place choices by the eligible applicants.

RSA points out "Such alternative structures as item (5) require further study and RSA is unable yet to propose feasible alternatives to the present and successful client-counselor system, regardless of the institutional or funding structure."

Assuming that the Counselor-client relationship is still the best method for serving blind people what are some of the emerging and continuing areas of need in work for the blind?

1. Folding into training programs of workers for the blind a strong attitude that accepts the client as an equal partner in planning for meeting his needs including the selection of programs and facilities.
2. The continued development of needed programs for the elderly and multi-handicapped blind.
3. The acceptance by policy-makers and staff of responsibility for advocacy and solution to problems growing out of current social and economic changes. Among these are:
 - a. Transportation.
 - b. Adequate housing.
 - c. Problems of the large number of blind people who live alone.
 - d. Problems of the elderly blind in congregate living.
 - e. Problems of public attitudes and equal opportunity.
4. The recognition and acceptance of consumers as partners and participants in the process of developing policy and service programs.
5. A movement away from being all things to blind people and a greater use of community agencies for certain services with appropriate educational input into these agencies concerning blindness.
6. Research and experimentation with new service delivery techniques.
7. The development of effective instruments for measuring the results of service rather than merely reporting on numbers served.

As one looks back to the 1830's we see that the abilities of blind people to learn and to work have come to be well accepted. Social involvement and equal opportunities have progressed but are still lagging.

The great strength of the service delivery system to blind people has been its concentration on individual needs. The great weakness of the system has been its conservatism and minimal innovation. One of the major tests facing the system is the trend toward consolidation of agencies for the blind either within another agency or in a large umbrella agency with decentralized units serving all kinds of clients including the blind. It is doubtful that effective services for the blind can flourish in such organizational arrangements. We must, therefore, modify these arrangements preferably through a separate comprehensive agency serving the blind or where there is no separate agency, through guarantees in the umbrella structure that there is a separate unit planning for and providing direct services to the blind; that there is a separate budget with opportunity for the Chief of services for the blind to present and defend his needs; that the Chief of services for the blind has direct access to the administrator of the umbrella agency or reports to a divisional director who is no more than one (1) step removed from the top administrator.

In the present climate of changing structures for service delivery and encouraging some and discouraging others through Federal financial support, the entire system of serving blind people is receiving its strongest challenge since its beginnings.

THE CHALLENGE OF DIABETES AS A CAUSE OF BLINDNESS IN THE 1970's*

By

Arnall Patz, M.D.

The discovery of insulin by Banting and Best in the early 1920's was one of the major achievements of the century, because it offered for the first time an opportunity for the diabetic patient to live a reasonably normal life. It was not until about 25 to 30 years later that the medical profession began to appreciate that, although the diabetic's sugar metabolism was controlled by the use of insulin, all during this period of his diabetes, degenerative changes in blood vessels were insidiously developing throughout his body. The changes in the blood vessels in the retina are of particular concern, because the eye is ill equipped to sustain the major deterioration that so frequently follows the retinal blood vessel damage by long-standing diabetes.

There have been many factors suggested as related to the onset of diabetic retinopathy (damage to retinal blood vessels and ultimate proliferation of abnormal blood vessels in the retina). The one observation that all investigators have agreed upon is the frequency of changes in the eye and the duration of the diabetes; for example, patients with a known history of diabetes of approximately 10 years will show a 25% incidence of diabetic retinopathy. Those patients with a duration of diabetes of approximately 20 years will show an incidence of 75% with retinopathy, and those patients with a duration of diabetes of 25 years or longer will in approximately 90% to 95% of the cases show some changes of retinopathy. Fortunately, all of these patients showing diabetic retinopathy changes will not necessarily have severe visual impairment, but only minor changes in their vision. Yet, enough patients have severe impairment that diabetes has become the largest cause of new blindness in patients age 20 to 60 in this country. This age group includes the prime period of gainful occupational pursuit. Various estimates of patients with vision impaired to visual or legal blindness suggest that for 55,000 persons minimum and 150,000 maximum diabetes is the cause of visual impairment.

Officials of the American Diabetic Association state that a minimum of five million patients are diagnosed as having diabetes mellitus. They recognize that many patients have diabetes which is undiagnosed and

*This paper was presented at the Forty-Fifty Convention of the American Association of Workers for the Blind in July of 1973.

estimate that up to 2 to 4 million patients in this country have latent, as yet undiagnosed diabetes. Because of the genetic inheritance trait of diabetes mellitus, it is projected that the incidence of diabetes in the population will steadily increase. Indeed, some investigators have projected that with the present incidence of diabetes and its yearly increase, together with the blood vessel complications of diabetes showing a steady increase, that as many as a half million patients will have significant visual impairment by the year 2000, unless major discoveries are made to prevent the retinal damage of diabetic retinopathy.

In recent Congressional hearings held before the Senate Subcommittee on Health Affairs, it was apparent that the general public is not aware of the serious side effects on the blood vessels throughout the body, particularly the blood vessels in the retina, in patients with long-standing diabetes. Furthermore, it was apparent that many general physicians were not intimately familiar with the high incidence of the blood vessel complications in long-standing diabetic patients. Many patients who have died of apparent heart disease actually had diabetes as the underlying cause of the blood vessel damage to the coronary vessels. For example, the late Jackie Robinson, the famous baseball player for the Brooklyn Dodgers, recently died and was reported in the press to have sustained a heart attack and his cause of death was attributed to "heart disease." It was not until a few months after his death that the New York Times carefully corrected the error committed by his physicians in describing the basic cause of death. Jackie Robinson's diabetes was of long duration and, indeed, his blood vessel disease which ultimately affected the coronary vessels of the heart was apparently due to diabetes. He also had lost all of his vision in one eye and suffered severe impairment of vision in the other as a result of diabetic retinopathy and its complications.

The National Eye Institute of the National Institutes of Health has recognized the high priority of diabetic blindness and has recently sponsored a sixteen hospital cooperative study to test what appears to be the most promising method of therapy now available. This form of therapy is called photocoagulation. Photocoagulation is achieved by focusing special high energy light rays from either a Xenon arc or from special types of lasers, such as the argon laser, onto the retina and the abnormal retinal blood vessels that are present in the diabetic eye. Except for one type of leakage of vessels in the background or the simple type of diabetic retinopathy, the documented proof of photocoagulation as a useful modality is still lacking. Although this method of treatment has been used for almost 15 years in patients with the more advanced or proliferative stage of the disease, it is still not absolutely proven that the results of this form of treatment are, indeed, better than the natural history of this type retinopathy left untreated. This unfortunate state, namely that a technique has been used for many years without sound documentation of the merits of the procedure, can be understood when we realize that these patients are in such desperate straits that once a form of treatment appears promising it is then widely used, so that any patient will have the benefit of treatment. The enthusiasm of the doctor managing the patient, and the patient himself, has led to this state. The National Cooperative Study is now testing, for the first time in a major

program in a carefully and critically controlled scientific method the advantages and limitations of this form of therapy.

It should be pointed out that, even if photocoagulation for proliferative diabetic retinopathy is proven to be effective, our present experiences with this form of treatment have demonstrated that it can only be useful in selected stages of the disease. Indeed, it has already been demonstrated that in certain advanced stages of proliferative retinopathy the treatment can actually be harmful.

The Senate hearings of February 26, 1973 were scheduled for the purpose of clarification and support of two independently-introduced bills in the Senate. In these hearings, it was pointed out by several of the participants that the division of the National Institutes of Health, which is the major research supporting agency in this country, spends approximately \$1.60 for each of the known five million diabetic patients. It was further pointed out that if one takes the absolute rock bottom number for patients who are legally blind from diabetes, using the figure of 50,000 for 1970, that it costs approximately \$250,000,000 yearly to support the diabetic blind. The National Eye Institute spends approximately \$2,000,000 total on diabetic retinopathy research, so that less than 1/100th of the yearly cost to maintain the diabetic blind in this country is spent by the Eye Institute on diabetic research. The National Eye Institute is to be commended on its wise utilization of the limited funds now available for diabetic retinopathy research.

The aim of current congressional bills is to increase appropriations so that an additional \$50,000,000 approximately per year could be added to existing appropriations for greatly expanded basic and clinical research on the multi-disciplined complications of long-standing diabetes. These recommendations were made in spite of present policies restricting further expansion of medical research in general. The purpose of current legislation is to make diabetes a target disease, just as the federal government has recently done in heart disease and stroke, sickle cell anemia, and cancer. Considering the large population of diabetics in this country and the seriousness of their complications of long-standing diabetes, the necessity for special support for diabetic research became quite obvious in the course of these hearings.

It was brought out in the congressional hearings of February 26, 1973 that if a significant increase in funds allocated for diabetes research were made available to the Eye Institute, a major expansion in basic research on the problem of retinopathy and a significant intensification in the training of scientists skilled in research techniques could be accomplished. It would be extremely helpful to the ultimate conquest of the crippling complications of diabetic retinopathy if each diabetic patient and members of his family would communicate with their representatives in the House and Senate from their respective states. A letter should urgently request that these legislators support legislation to increase appropriations to the National Institutes of Health to expand research in the prevention of diabetic blindness and the other vascular complications of diabetes. A sample letter is presented to each patient and his family examined in the Diabetic Retinopathy Center at

the Johns Hopkins Hospital. This letter has been furnished now to approximately 1,100 patients and their families. Most of these individuals have communicated with their respective legislators and the response from Congress to them has been almost universally affirmative in each instance.

THE SERVER AND THE SERVED; DYNAMICS,
ATTITUDES AND RIGHTS*

By

W. Payton Kolb, M.D.

Dr. John Whitehorn, formerly Chairman of the Department of Psychiatry at Johns Hopkins University and Past President of the American Psychiatric Association, writing the forward in the book Persuasion and Healing, by Dr. Jerome Frank, states:

There are many persons, disturbed by unanswerable doubts, who need the reassuring hand of a wise and trusted guide. Others, jumping from the frying pan of doubt into the fire of urgent, but poorly chosen action, need both a helping hand and a pointing finger to see the situation as it is and as it may be remedied. For all persons, coping with life situations is inherently a co-operating enterprise, in which everyone at some time or other, needs help and guidance from another.

For man is a domestic creature with infinite social and cultural involvements. He is continually and crucially influencing others and being influenced by others. Without the others he would be next to nothing; with them he has created the family, civilization, culture, morals, law, industry, religion, war - in short, heaven and hell. There is therefore nothing more important for man to understand and to master than the processes of person-to-person influence. Yet, in this influence business, knowledge lags behind action; we perform better than we understand.

Throughout history we find evidence of people requesting service of others and people rendering service to others. This relationship has been and continues to be very complex and interesting. As Dr. Whitehorn has said, we are capable of giving and receiving of services without fully understanding the dynamics involved. As time passes we learn more about the relationship and improve our techniques of performance. It is with this in mind that I would like to discuss some important points in this relationship and particularly emphasize some new developments.

I would like to briefly review our concepts of personality development, because this can help us understand the problems of our clients and

*This paper was presented at the Forty-Fifth Convention of the American Association of Workers for the Blind in July of 1973.

patients, our own problems, and the effect of these problems on our relationships between the server and the served. Prior to the time of Freud our knowledge was confined to the observation and classification of symptoms and behavior, particularly those symptoms and behavior patterns that caused the social order to feel that it must in some way interfere with the movement of the individual through his culture. Freud introduced us to the concept of dynamics, insisting that there were reasons for such behavior and an understanding of such reasons could in turn produce a more efficient and comfortable social order. This concept opened the door for vast new areas of understanding.

Although we may make changes in our theories as we gain more knowledge, there is very little that has been changed as far as the concept of the basic structure of the personality is concerned. We look at the personality as having three basic components: the id which consists of the basic primitive instincts, the ego which gives identity and is the level on which we operate from the standpoint of punishment and reward, and the super ego which is our conscience. We are born with our basic instincts which demand gratification and care little for the rights of others. Very soon after birth we begin to learn that we have to put some restrictions on these instincts if we are going to be accepted and this is done through punishment and reward. A few short years later, through many experiences we develop this thing we call a conscience or super ego.

When we attain adulthood these three components should be in balance with an interaction among them. The balance will shift frequently, but if we are relatively free of anxiety the balance will remain constant.

In the development of the personality we feel, and sometimes rightly so, that the environment is hostile. As we develop the ego and super ego, we learn to cope with the stress of the environment by developing various defense mechanisms. Most of these are unconscious and somewhat automatic. Most of the time, however, they serve us well. If they fail, or I should say partially fail, we are confronted with anxiety, which can range from fairly mild to devastatingly severe. It is defense mechanisms we use to avoid stress (denial, displacement, repression), to attack stress (project), to relieve guilt (rationalize), etc. The break down in this system will produce anxiety, and this is the core of the neuroses. It is also the interplay between the mechanisms of the people involved that make interpersonal relationships so fascinating. Dr. Eric Berne's popular book Games People Play is based on this and makes it easy to understand.

I realize this is a great over simplification of this theory; however, I want to lay the ground work for my further comments. Let me add one or two other points briefly. In the first place psychoses, as distinguished from the neuroses, are different in their dynamics with the ego. In the second place, however, the production of any type of emotional or mental illness is caused by some precipitating stress that occurs at a particular time when for some reason our defenses are not ready. Milder forms of this reaction produce mood swings and attitude

changes that may be irritating at times, but usually are considered within the normal range of activity.

In considering the psychiatric aspects of blindness, I have been impressed with the fact we are not particularly confronted with any unique or "different" syndromes or symptom patterns. We have known for a long time that depression does occur in most instances with the onset of blindness. In most cases this is rather incapacitating but it is self-limiting. The time element and depth is dependent on the basic personality, as is true with depression in the sighted.

Blindness can function as a precipitating stress, as do many other agents. Any other type of mental or emotional illness can be the result of blindness, as a precipitating stress dependent on the basic personality.

I have not been overly impressed with any unusual mental or emotional illnesses among the congenitally blind. We would expect a higher percentage of "overly protected" children among the blind, but certainly the incidence of this problem is high among the sighted. In some cases there may be a difference of degree. I remember a 15 year old trainee at the Arkansas Enterprises for the Blind who came to us without having been toilet trained.

Certainly there are elements of apprehension, loneliness, resentment, and other feelings which are more evident when one or more of the senses is absent, but the adjustment is based on the various abilities of the personality, just as to a sighted person with the stress comes from different directions. As Dr. William Menninger has said, "Emotional problems of any handicapped individual may be more important impediments to his rehabilitation than are physical factors." I would add to that the statement that the emotional problems and physical handicap may not be directly related.

It is important to remember that emotional illness, regardless of dynamics or precipitating stress, is merely an exaggeration of normal behavior. We all at times and to varying degrees experience anxiety, depression, phobias, obsessions, compulsions, and all of the other classical neuroses syndromes. It is only when these get to a certain degree that they become an illness. In the same paper, Dr. Menninger has said:

Man is an irrational but educable animal. His irrational reactions are the result of both the conscious and the unconscious elements of his personality. We need not be mystified by these nor on the other hand, resigned to them. With enlightenment and understanding he can change.

I indicated that many of the defenses we use to protect ourselves are unconscious. It was this fact that created controversy and caused Freud to be accused of denying that man had any conscious control over his behavior. We have, however, always said conscious control is one of our most valuable defenses. Freud himself said: "We may insist as much as we like that the human intellect is weak in comparison with human instincts and be right in doing so. But nevertheless there is something

peculiar about this weakness. The voice of the intellect is a soft one, but it does not rest until it has gained a hearing. Ultimately, after endlessly repeated rebuffs, it succeeds. This is one of the few points in which one may be optimistic about the future of mankind, but in itself it signifies not a little and one can make it a starting point for yet other hopes."

I have pointed out above that those of us who work with people needing some type of assistance have personalities, defense mechanisms, and "hang ups" (or "blind spots" as Freud expresses it) just like our clients, trainees, or patients. It is not altogether a joke to comment on the psychiatric service that occasionally a mental health professional should go to occupational therapy and work on a project to determine exactly who is the patient. It is not always honest to explain a failure in our work by blaming the "unconscious resistance" of our client. It is also important to realize that the "voice of the intellect" is operable in us all, and consequently it behooves us to always be consciously aware that we are not perfect ourselves.

The above quotations of Dr. William Menninger are from his paper, "Emotional Adjustments for the Handicapped." In that paper he further states:

When an individual has emotional or intellectual or physical limitations the adjustment is more difficult. The difficulty is greatly increased when those about him lack an understanding of his situation.

If we are going to understand adequately the reaction of the physically handicapped individual we must start with a clear understanding of ourselves. Whatever his reaction may be depends very largely on our reactions to his problems.

Part of the attitude we have involves the attitude of the culture from which we come. We may consciously develop wholesome attitudes but must be aware that an opposite or prejudicial attitude may be lurking in our unconscious ready to influence our thinking and behavior if we "drop our guard." Again Dr. Menninger says, "Popular Opinion continues to emphasize the potential liability instead of looking for compensatory assets."

A paper of this type should not be just a series of quotations but Dr. Menninger expresses his ideas so well that I would like to quote him one more time from the above paper:

Every worker with handicapped persons must become something of a psychotherapist. He must appreciate the importance of the effect of the reaction of his own personality on the feelings of handicapped people. He must help fortify them against discouragement; help divert their aggressiveness, which is stimulated by frustration; help them accept the reality of their limitation.

Several years ago while appearing in a series of conferences on a college campus I was startled by a student who asked me, "Why did you

become a psychiatrist?" . Until confronted directly by the question I thought I knew the answer but actually I was somewhat surprised at my conclusions when I thought about it. Few people know that I actually had some postgraduate training in the field of obstetrics. I had every intention of pursuing that specialty when I returned from military service. I want to make the point that my decision was based partly on my reflection, including a lack of fear of psychiatry, a desire to be of service in a field short on manpower, and an interest in the field. To my surprise I found some motivations that could be classified as neurotic in nature. This included getting a quick way to get out of an uncomfortable setting and being "stung" by a criticism of obstetrics by a friend of my father's, whom I admired. My point in saying this is that if we search ourselves we can probably find some neurotic elements in all of our major decisions. This in itself does not mean our motivations are wrong when we go into a profession of serving other people and in fact the neurotic elements may have some balancing properties in our behavior. It is wise to be aware of this, however.

Another excellent writer in the field of psychiatry is Dr. Leo Bartemeier of Baltimore, Maryland, another past president of the American Psychiatric Association. In his paper entitled "Interpersonal Relations in the Practice of Medicine," Dr. Bartemeier says,

. . . lack of self-awareness in one's relations with others presents the possibility of many desirable changes. It is the greatest single obstacle to the rendering of more effective medical care by many physicians. . . . Self-awareness is often painful to one's self-regard but without it one is apt to do and to say many things which may prolong illness or interfere with recovery.

Although this was written primarily for physicians it is certainly true for anyone who gives of himself in service to others.

Last week at our center at Little Rock, I had an opportunity to lead a discussion with our entire group of trainees. Anticipating this meeting, I lead them into talking about their feelings concerning their relationship with their counselors. They were aware that in that group I could not know them well enough to know their counselors at home; therefore, I felt they would be honest with me. With a show of hands they almost unanimously indicated they were satisfied with their relationship with their counselors. It was interesting to note that most of them felt any problems they had were caused by a breakdown in communication, and they took their share of responsibility in that.

Occasionally, I have been confronted with a comment that a trainee feels his counselor is too authoritarian or dictatorial. Many times this is more the problem of the trainee than the counselor. With our own personality dynamics, however, I am sure at times we do fall into that trap.

On this subject, I would like to give you a quotation but not identify it until it is finished:

There are men who with clear perception, as they think, of their own duty, do not see how too eager a pursuit of one duty may involve them in the violation of others, or how too warm an embracement of one truth may lead to a disregard of other truths just as important. As I heard it stated strongly, not many days ago, these persons are disposed to mount upon some particular duty, as upon a war horse, and to drive furiously on and upon and over all other duties that may stand in the way. . . . They have, therefore, none too much charity toward others who differ from them. They are apt, too, to think that nothing is good but what is perfect, and that there are no compromises or modification to be made in consideration of differences of opinion or in deference to other men's judgment.

This may be a little strong for our purpose here, but in view of Watergate I felt it appropriate and it does point out some dangers to avoid in working with people. The quotation is from the famous speech on slavery made by Daniel Webster in the United State Senate on March 7, 1850.

I am not saying by this that the counselor is present merely to carry out the wishes of his client. The counselor has gained certain expertise from his training and experience which is needed by the client. The client frequently has either a lack of knowledge or a neurotic drive to satisfy that produces poor judgment. It is our responsibility to maintain our objectivity to help such a client make wise decisions. We make mistakes in both directions but with sincere effort we can minimize such errors. In this regard, I am frequently reminded of our college preparatory trainee who obviously was not college material. His neurotic drive was so great that he forced us into a position where he had to be allowed to start college as this was obviously the only way we could convince him of his limitations. You have probably already guessed what happened. He made the Dean's list.

Sometimes the needs of our clients lead them into a pattern of behavior in which the worker is verbally attacked. As the old saying goes, "If the shoe fits we should wear it." Many times, however, the hostility is actually felt toward someone else and merely displaced toward the worker. An understanding of the client in this setting can produce one of the most meaningful relationships that can exist and can open many doors of opportunity. To meet such hostility with counter hostility can destroy all efforts at helping the one who needs help and can leave us in a most unhappy position.

Many more things can be said in regard to the relationship between the worker and the client. I would like, however, to spend a few closing minutes on some new developments in this whole area of worker and client or patient relationships.

Much has been said about people's rights. The newness of the situation may frighten us into opposing any change; however, it seems to me that maybe we are beginning to see a movement toward what the framers of the constitution really had in mind. To me these are exciting times in which to live and maybe for the first time in history a culture

is going to be able to develop a true state of "brotherly love." If it happens we must realize the road will be very rough, but the destination will be worth it.

We will have to tolerate such scenes as a young woman burning her bra to symbolize her new liberation, while wearing a United States Flag on the seat of her blue jeans to denounce symbolism. The declaration of the Supreme Court that the Arkansas prison system was unconstitutional was a landmark decision that will have far reaching effects. In Alabama the Wyatt vs. Stickney Case in which a patient contended that if a state took the responsibility to commit him to a state hospital, then it had the responsibility to give him adequate treatment was upheld by the courts. In California a mother is suing a school system because her son was graduated from high school but could only read at the fifth grade level. We may wonder what the "world is coming to" in our apprehension over such decisions, and yet when we advocate an educated public we should mean what we say.

To be a little more direct to our work, Dr. Henry Weihofen in his paper, "Mental Health and the Law - All Things to All People," has posed questions applicable also to any agency serving people. He asks, "Can one component be held legally responsible for the negligence or malpractice of another? Must a center supervise the operation of its affiliates to make sure they are exercising adequate standards of care? Who is responsible if the patient gets hurt as he moves through the network of services?" Although at first glance such as this tends to frighten us, I believe that in the long run the answer to these court decisions and these questions can mean better and more efficient service to our clients and patients.

Time does not permit us to do more than just mention the question of computers and confidentiality. We are now in a crisis on this point at this time. We must not sacrifice a person's dignity and personal rights on the altar of computerized efficiency or tolerate anything else that violates his confidentiality. An interesting "spin-off" from this question is now the growing controversy over the client or patient's right to have complete access to his own records. If he does, will this necessitate a change in record keeping? I believe it may force us into better record keeping.

A few years ago, I heard a young nuclear scientist make the statement that we could no longer be content with short "dirty" solutions to our problems, which frequently produce more problems. We are now faced with the need for more complex long range planning if we are to survive and enjoy our planet. As we learn more about inter-personal relationships we find them more and more complex. Although this may require a greater effort on the part of all of us what we can mean to our clients and patients is well worth it.

When I entered medical school I was told that one of the most respected professors in our school had a standing rule for his first meeting with a new patient. It is simply this: He would ask himself, "What can I do for this patient and what can this patient teach me?" Such a philosophy needs no amplification or explanation and I leave it with you on that basis.

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THE PERKINS BRAILLER

A BRIEF HISTORY*

By

Edward J. Waterhouse

The Howe Memorial Press, which is the manufacturing department of the Perkins School for the Blind, had been making braille writers since this century began when Dr. Gabriel Farrell became the school's fourth Director in 1931.

In consultation with leaders of the field, including Dr. Robert Irwin, the Executive Director of the American Foundation for the Blind, Dr. Farrell decided that production should cease on the current model for several reasons.

First of all, the Howe Press machine was similar to a number of others being made both in the United States and abroad. Secondly, it was not a precision-made machine and frequently needed repair. Its main frame was cast iron and when it was dropped, it was apt to break. It was noisy and, though inexpensive, it had nothing particular to offer in way of competition with other machines.

At that time the American Foundation was sponsoring a braille writer manufactured by the L. C. Smith Company which was expected to meet the needs of blind people for years to come. However, the machine was more suitable for adults than for children. It was very heavy and noisy, and the keys required much too much force for small children. Indeed no braille writer at that time was light enough for a child's touch, except possibly the Pyke-Glauser manufactured in small quantities by the Royal National Institute for the Blind in London.

Dr. Farrell waited until he could find a design which he thought would offer enough advantages over existing machines to warrant production. This opportunity came in the mid-1930s with the arrival at this school of Mr. David Abraham.

David Abraham was an Englishman born in Liverpool who had been one of the original members of the Royal Flying Corps when it sought enlistees a few years before World War I broke out. In the flying corps he acquired a knowledge of mechanics and developed habits of accuracy and high

* Editor's Note: This article came to the attention of the Publications Advisory Committee of the AAWB as an unusually clearcut case history showing the unique problems which accompany equipment in work for blind from inventor's concept to usable product.

standards of workmanship which paid off handsomely in later years at the Howe Press. During the war, he participated in early raids over the German trenches when hand grenades were used for bombs and where pilots attacked each other with pistols.

After the war, he proceeded to his father's business in Liverpool which was engaged in importing stair rails. During this period, David Abraham designed and built a machine for turning the various shaped up-rights used in banisters, and this machine was apparently quite successful.

However, Mr. Abraham decided that his future did not lie in England. Just about the time that the depression occurred in the United States, he arrived with his wife and two children in America.

For some time he was without suitable employment. By the mid-1930s he was actually engaged as part of a road crew working on the Charles River Road which separates Perkins from the river. Seeing the sign "Perkins School for the Blind" he came in and asked if there was a position that he could have in our Woodworking Department.

Dr. Farrell hired him as an industrial arts teacher and used him during the summer months in the Maintenance Department on various projects, some of which included carpentry of a high order. It was he who made the handsome paneling which is still a feature of the Bursar's Office, and he made a beautiful oak table with benches for use on the porch of the Director's residence.

About this time Mr. Abraham mentioned his experience as a machine designer to Mr. Nelson Coon, who at that time was Superintendent of Maintenance. Mr. Coon passed on this information to Dr. Farrell, who in turn called me in for consultation.

My own position at the time was a teacher of mathematics, but also was beginning to understudy Mr. Frank C. Bryan, the Manager of the Howe Memorial Press who was approaching retirement age.

The Howe Press, in the 1930s, was engaged, as it still is, in embossing braille books mostly for the Library of Congress or for the school's own needs. In addition, it then had a small machine shop with two employees, Mr. Andy Anderson and Mr. Carl Link. These elderly gentlemen manufactured the original Howe Press braille writer and were still engaged in making shorthand writers and braille slates and similar devices. They possessed no equipment on which a highly precise instrument could be manufactured.

Dr. Farrell called me in since I had approached him earlier with the hope that the Howe Press might design a braille writer which could be of use to our pupils in their arithmetic classes.

As a result, Mr. Abraham was invited to consult with me on the specifications of a braille writer. He was provided with a lathe and a few other simple power tools which were placed in the basement of his home in nearby Waltham and asked to do what he could.

In a number of sessions during the months that followed, Mr. Abraham and I drew up a list of desirable features for a new writer, some of which were as follows:

1. The machine should have a touch so light that the fingers of six and seven year old children could handle the keys easily.

2. The machine should also be easy to use in other ways. It should require little time or effort to insert paper. It should also not require much time in line-spacing.

3. The machine should be such that paper which had been embossed could be removed and reinserted later without destroying the raised material so that more braille could be added even, if necessary, including dots in an unfinished cell. This feature was desirable for arithmetic purposes. Also to help in arithmetic, easy backspacing and back line-spacing was desirable.

4. The machine should handle at least a standard 8 1/2" x 11" paper. If a machine could be produced which was not too heavy or expensive, it was agreed that it would be preferable that it should be 12" wide and should handle a page at least 12" to 14" deep.

5. The machine should be as quiet as possible. It was realized that if the machine was to be satisfactorily used in school, a class in which perhaps seven or eight writers were in use could create noise problems unless each machine was quiet.

6. The machine should also be tough and hard to break when dropped. Experience had shown that much damage had been done to braille writers as pupils carry them through the school corridors, bumping them into walls or furniture. This meant that there should be a minimum of projecting parts.

For several years Mr. Abraham worked without making any progress reports at all. At intervals he would discuss with me some features which he thought might be useful, and a good deal of discussion took place about the desirability of having the braille writer capable of embossing on both sides of the page. He explained that the particular design he had in mind, which he felt had most of the features we required, would not easily incorporate this particular feature. It was left that Mr. Abraham would do his best with this problem but that other features should not be sacrificed in order to provide two-sided braille. In making this decision it was believed, of course, that the chief use to which the braille writer would be put would be in the classroom, and that here two-sided braille was not of great importance.

The Prototype Machine - Just about the time of the Japanese attack on Pearl Harbor, Mr. Abraham presented Dr. Farrell with a Perkins Brailier which was virtually identical with the models now in production. It had so many desirable features that all who saw it were delighted. Many things had been incorporated beyond those which were listed among the specifications.

One of the best of these was a device whereby a sheet of paper of any size can be inserted and will stop when the top of the page reaches the desired point. In other words, it is impossible to roll in the paper too far. There are people who have been using the braille writer for many years who have not yet discovered how this mysterious feat is accomplished. The answer is quite simple. Underneath the left margin stop is a small roller which is pushed out of the way as the paper is inserted. When the top of the page passes clear of that roller, it drops into a slot and locks the mechanism.

Another good feature is that the paper will not fall out when it is unrolled. This is a weakness that has caused much annoyance to users of many braille writers through the years. However, with Mr. Abraham's machine when the page has reached the point where it can be lifted clear of the machine, the mechanism locks and the paper has to be released by raising a small lever. These were just two of the extra bonuses which Mr. Abraham had built into the machine. In addition, the various specifications which we had requested were all included with the exception of the ability to write on both sides of the page.

Lightness of Touch - As far as lightness of touch was concerned, this was obtained most successfully, and mainly because the machine was precision built and all parts operated smoothly. An even more important feature perhaps is that the machine produces even dots in a cell regardless of uneven pressure on the separate keys. A simple device sets up the required combination of six punches by a very light pressure on the appropriate keys. The actual embossing which is accomplished by the die being pressed down over the punches is carried out by the joint action of the fingers on any one or more of the six keys. Whichever key is actually pressed hardest does the major part of the work but the result is dots of a uniform size.

This has perhaps a greater significance than appears on the surface. In the standard machines in which each of the six punches is operated independently of the others, operators discover that their third fingers which operate dots three and six are not as strong as the others and produce lighter dots. There is, therefore, a tendency to put extra pressure on those two fingers which usually results in a slight rolling motion of the wrists. Indeed, people who have been using other machines found a little difficulty in adapting their techniques to the Perkins writer which requires that the motion be entirely vertical. They had to break the habit of rolling the wrists. With the Perkins writer, it is necessary that whatever keys are to be pressed should be pressed simultaneously. This action is far less fatiguing than the traditional one.

The importance of the light touch and easy effort cannot be over-emphasized. Up to this time braille was introduced into schools for blind children all over the world through the braille slate which has to be written in reverse. Braille writers were not used usually below the fifth grade. When the machines went into production, news soon began to arrive that writing on the Perkins brailier was being introduced to beginners in schools in various parts of the world. This quickly happened at Perkins and nowadays all over the world where brailiers are in use, the writing of braille is now introduced in this way at an early age.

The machine also is extremely easy to use in other ways and it requires very little time in moving from line to line. Here it had a great advantage over the Pyke-Glauser, the British machine with the light touch referred to above, which also had the advantage that two-sided braille both interpoint and interline could be used. However, its great weakness was the time required to move the page from line to line.

As far as the reinsertability of the paper was concerned, this was accomplished mainly through the fact that the machine was a precision-built instrument with, as Mr. Abraham once said, probably more precise parts than many a wrist watch. It is possible to emboss material on a page, remove the sheet, and put it in again and emboss exactly over the material already embossed, or to insert dots in a cell, or to insert extra cells in the correct spaces and lines. This has many advantages, notably in handling mathematics. Also, since very few people are perfect in their braille, this feature makes corrections possible with accuracy and ease.

A Quiet Machine? - On the matter of quietness, the situation is a little more complex. When people use this machine as designed, where the fundamental action is one of pressure rather than by striking the keys, they can operate it almost noiselessly. However, as far as most children are concerned, the temptation to hit the keys as one does with a typewriter is great, and there are very few youngsters who actually use pressure instead of striking force.

An interesting episode which took place just as the machines became available, however, demonstrates the value of a quiet machine.

About 1951, a blinded veteran of World War II came to my office in the Howe Press and explained that he had flunked his first year at Harvard Law School. It was virtually impossible to get permission to repeat a year at Harvard Law, but he explained to me that his problem was that his professors would not allow him to use a braille slate since it disturbed the lectures. He had to rely on his memory which had proved inadequate. He asked if we thought the Perkins brailler would be quiet enough to use in a lecture hall. We allowed him to borrow one of the very few machines that had come off the production line, and showed him how to operate it. He demonstrated this to his professors at Harvard Law School who found it acceptable. He was given the opportunity to repeat the year. Unfortunately, we never did hear whether he passed his exams on the second attempt.

Breakage - Finally, the question of breakage was wonderfully handled. Most braille writers are like typewriters with a carriage which moves from right to left as the keys are struck. This means that at the beginning of the line the carriage projects on the right and later as the work progresses, it projects on the left. For a blind person this has many disadvantages. Even when placed on the table, the carriage could knock things off and, of course, the projection itself can become seriously damaged. Mr. Abraham used instead a fixed carriage with a movable punch and die box.

The Perkins machine is wholly enclosed in aluminum plates. The keys themselves are quite short and are protected by a casting projecting

a little farther than the keys themselves. The line spacer knobs are small and made of a tough plastic and are very difficult to damage. The only other projection is the handle, which under normal conditions, is recessed into the top of the machine. Experience has shown that very few writers get seriously damaged even when dropped or hit hard against other projections.

This design also added to the quietness of the machine. The space between braille cells is much greater than it is between printed letters on a typewriter. Each time a cell is embossed, the mechanism has to move about a quarter of an inch and stop sharply. If this mechanism is a rather heavy carriage holding the paper, some rather loud noise is unavoidable. The die and punches on the Perkins braille weigh a fraction of what a paper roll would, and consequently make much less sound.

Not too much had been said in advance in the specifications about weight. The Perkins braille weighs a little more than a number of its competitors, and it also is a lot more costly. It is, however, a very precise machine which stands up under heavy abuse in many climates and under all sorts of conditions.

Introducing the Machine - Nothing could be done until the war was over, but in 1945 the Trustees agreed that Mr. Abraham should be invited to assist the Howe Press in putting the braille writer into production while I, who became the Manager of the Howe Press in 1946, was asked to assist in its production and to demonstrate the prototype to blind people wherever possible, and to see whether we might be able to obtain orders for one thousand of them. It was at this time that the name "The Perkins Braille" was chosen by Dr. Farrell.

Introducing the Braille - It was much easier to sell the braille than it was to produce it. It so happened that because of shortages of material following the war and because of the meticulous care which Mr. Abraham put into production, the first machines available for sale did not appear until 1951. By that time I had had many opportunities to demonstrate it at conferences and other places where blind people met in various parts of the United States. Over two thousand firm orders were received before a single machine was sold, necessitating an increase in our production goals from one thousand to two thousand models.

Producing the Braille - As an initial step towards the production of the braille, the Howe Press machine shop was moved from South Boston to the power house building on the school campus in Watertown. Both Mr. Anderson and Mr. Link had reached retirement age and for about a year Mr. Abraham was the only person working in the shop. As he manufactured the necessary tools and dies, the work force was increased, and when the time came for setting up an assembly line, the number of people working on the braille approached forty.

The care with which Mr. Abraham set up the production of the Perkins braille was remarkable. Moving parts were tested at high speeds involving operations which would far exceed those on any possible life of a braille. He considered different ways of making most of the parts and tried each of them himself to obtain relative costs. He worked long, long hours in the

machine shop, taking virtually no vacations at all during this period, and often worked well into the night.

The machine Mr. Abraham designed is not a simple one. Its many parts are compressed into a small compass, and there is no superfluous weight. In saving weight he designed a special device for rolling the paper. Instead of a cylinder used in most machines, he designed an open cage of aluminum rods which weigh only a fraction as much as the cylinder would. One of the heaviest parts is the steel bar which exerts the necessary pressure for embossing, and this is shaped to save as much weight as possible, the final design being the result of much experimentation.

Mr. Abraham also used much ingenuity in working out ways in which the parts could best be made. For example, the pressure roller which holds the paper firmly is covered with rubber which he "shot" onto a steel rod after expanding it balloonwise with air pressure.

The most complex parts of the machine are aluminum castings which hold the various parts together. The design of such castings are usually the work of a specialist, but Mr. Abraham succeeded in designing what he needed correct to the smallest detail. They represent the highest skill that he had to exercise in bringing the braille into production. The original molds made to his design cost nearly \$100,000 in 1950.

The years 1946-51 were not a good time to produce a new manufactured article. Steel and aluminum were in short supply and frequently when metal was received, it did not measure up to the required specifications. Mr. Abraham insisted on everything being exactly correct before he would accept delivery. So, as a result, when the first production machines were available, they were as perfect as could be. Indeed, in the years since then, very few changes have been made either in production methods or design.

Financing the Braille - By 1947 the American Foundation was sufficiently interested in the Perkins Braille to obtain a grant of \$20,000 from a New York foundation towards its tooling and the Hyams Fund of Boston contributed a like amount. However, these sums were quite inadequate for the purpose as can be shown by comparing the size of the Howe Press endowment in the 1947 Annual Report, which lists it at over \$300,000, and the comparable figure in 1952 of \$187,000. In other words, 40% of the Howe Press endowment fund was expended before a single machine was sold.

World Wide Acceptance - When the machines reached the market, the demand for them grew. It became necessary to build an annex onto the power house to provide space for a machine shop far larger than anything which the Howe Press had occupied before. A work force of over 50 has been engaged during the last twenty-two years in manufacturing these machines and there are now approximately 75,000 of them in use throughout the world. For the last several years 50% of the orders have come from overseas. In spite of increased rate of production, there has always been a waiting list involving delays which have sometimes been

as much as twelve, but which have more often been in the neighborhood of three months.

It was, of course, originally anticipated that the machines would be used mainly by school children. This has not proved to be the case. Over half of the machines are used by adults, including thousands of American volunteers who produce braille for blind students, mostly pupils in the public schools. Indeed it has been stated that the growth of the public school programs for the blind in America would not have been possible had the Perkins Brailler not appeared on the market just when it did.

A brailler that can be operated with one hand has been developed and a certain number have been sold. These are used mainly in areas where a great deal of hand-copying of braille material is still done by blind persons reading a text with the right hand and embossing it with the left.

Also, in recent years there has been an increasing demand for an electrically operated brailler. A good deal of time has been given to developing and in particular to making sure that the machine is reasonably quiet. After many tests of different designs, it now seems probable in 1973 that a number of machines should be available on the market within a year which we hope will be as reliable as the hand operated models.

Mr. David Abraham retired in 1961 and was succeeded by Mr. Harry J. Friedman, who has managed the Howe Press since. He has promoted the braille writer in every way and has maintained production and also maintained the all important high standard of quality. The most recent modification of the machine is a special model to produce jumbo braille. The market for this specially modified machine was believed to be very limited, but it has exceeded expectations, and at this time approximately 100 of these machines have been put into use.

As far as is known, not a single brailler has actually worn out. The machines, of course, come back from all over the world for repair, and some repair centers have been established in various parts of the United States and overseas. A detailed service manual is available for agencies and persons who wish to carry out their own repairs, and this is now available in several foreign languages.

Conclusion - It was a fortunate happening that at this time in the history of the education of the blind, there should appear in Mr. Abraham an unusual man, largely self-educated with a genius in machine design and production techniques. Because of his insistence on accuracy and high standards, he was able to set up a production line which guaranteed that all parts of the machine would work together as planned and would stand up under a great deal of strain over many years. Although the Perkins Brailler is one of the most expensive made in the world, it is certainly the best known and produced in the greatest numbers. The Royal National Institute for the Blind in Great Britain abandoned work on developing the Pyke-machine largely because of the impending retirement of Mr. Edward Pyke and in recent years it has become our biggest overseas customer. Over 50 countries have made purchases and

there are many schools even in what may be considered undeveloped areas of the world that strive to provide a brailier for each one of their pupils.

As a small recognition of his contribution to our field on the occasion of the production of the 50,000th Perkins Brailier, the machine shop which he designed and where he produced so many machines was named the David Abraham Shop in 1967.

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time, our interest."

Princess Marie Louise of Britain

One hundred years ago in London a citizen of the United States, a blind music master named Francis Joseph Campbell, set himself the task of demonstrating to the British and to the world a model educational enterprise for blind children and youth. Its purpose was to educate blind pupils and at the same time to instruct novice teachers in the art of teaching. This enterprise was to become the Royal Normal College and Academy of Music for the Blind, and Campbell was to be in old age "Sir" Francis Campbell, a pattern in the English-speaking world of the successful blind leader of the blind.

Those who trace the lineage of efforts to better the lot of mankind might well ponder the capriciousness of altruistic innovation in what Campbell accomplished during his own lifetime and also what came of it afterwards. For in his prime and old age, his achievements commanded enormous respect in Great Britain, while they were either ignored or scorned in the United States. Yet since his death, interest in him has diminished in Britain while it has grown in the United States, where much of his theory has been put into practice. American teachers, trained by him at the Royal Normal College in the 1870's, 80's, and 90's, were key figures in the most significant original thought and action with respect to blindness in the first quarter of this century, and out of their experiments came large growth in education and rehabilitation thereafter. About this it is possible to be quite specific.

Charles Campbell, son of Sir Francis, returned to the United States to found the Outlook for the Blind, the enduring professional journal for the field of work for the blind from 1907 on. He also established the Massachusetts Commission for the Blind and its "experiment station" to project blind workers into industry. He was a key figure in transforming the American Blind Peoples' Higher Improvement Association into the American Association of Workers for the Blind and in giving it its constitution in 1905. Moreover, his own generation regarded him as the most important behind-the-scenes promoter of a national approach to problems of blindness, which culminated in the establishment of the American Foundation for the Blind. He was the acknowledged mentor of Col. E. A. Baker of Canada and of Joseph Clunk. Also, Helen Keller credited him with giving her the platform assurance which enabled her to present the cause of blind people with both dignity and charm. This alone might be cited as the greatest leverage in behalf of blind people ever used to bring about what she called "better public habits."

One of the individuals who derived his inspiration and mode of thinking and action from the Royal Normal College and Campbell was Dr. Edward E. Allen, who rebuilt both the Overbrook and Perkins Schools in the early part of the century, which, together with the Maryland School, broke the pattern of the old congregate school. Dr. Allen established teacher training at Perkins in affiliation with Harvard University. He was also a cautious but early spokesman for education of blind children with the sighted.

Joel Smith of Perkins, who insinuated braille into America on the way to its ultimate victory over New York Point, was trained at the Royal Normal College, one of forty-four American teachers who sojourned there.

Aside from these considerations, one pattern set by Sir Francis is paramount. As much as anyone, he laid the foundation for the tradition of the indispensable blind leader of the blind in the English-speaking world. Little given though Americans are to tradition, this is so deep and subtle a part of the national life that public officials now think a long time before they appoint sighted individuals to key positions of leadership. Some may debate the administrative theory of this, but very few with experience debate its practicality.

For all this, "The Best of the Past" section of BLINDNESS 1972 marks the 100th Anniversary of the Royal Normal College and Academy of Music for the Blind with some essays concerning its early days. This is possible in part because excellent accounts of the college were given in early issues of Outlook for the Blind. But also an ample store of information has been derived from an extraordinary cache of blindiana. The papers of Sir Francis Campbell are in the manuscript room of the Library of Congress, thirty-seven boxes of them open to scholars, who may visit them any day except Sunday, inspect them at length, and thus get all kinds of intimate views of one of the most creative blind men of his own or any time. Someday it is to be hoped the basic documents will be exhumed and published. Many principles of social interaction for the cause of the blind are illustrated with great frankness and without giving offense to the living.

PART I

THE CRADLE OF THE OUTLOOK'S FOUNDER

By C. Warren Bledsoe

Outlook for the Blind, the first enduring American periodical concerning blindness, was founded in 1907. In its early years it was edited by Charles Francis Fulkner Campbell and his wife, Wilhelmina Dranga Campbell, the son and daughter-in-law of the highly gifted blind educator of the blind, Dr. (later Sir) Francis Joseph Campbell and his second wife Sophia, nee Faulkner, known as Lady Campbell in her later years.

Charles Francis Faulkner Campbell was one of the few workers for the blind of his generation whom large numbers of rather stern and forbidding educators in the field not only called by his given name but by its diminutive, "Charlie." To his dying day, and to his credit, he was a being of almost childlike innocence, an innocence which kept the respect of his contemporaries, even when it shocked and exasperated them. But he was not without sophistication, nor had he lacked opportunity to observe the world and its ways. Indeed the surroundings which cradled him in his early years were so varied, dramatic and unusual that they were termed "exotic" by Dr. Samuel Gridley Howe, founder of the Perkins School who had spent his life exploring atypical aspects of human experience and was not easily impressed by the exceptional.

"Charlie" Campbell was born on February 19, 1876 at the cracking new Royal Normal College and Academy of Music for the Blind at Upper Norwood, a suburb of London. The school was the creation of his blind Tennessee-born father and his New England-born mother. They and numerous American colleagues, imported in relays, were about the business of demonstrating to the British Nation at the expense of its philanthropists American democratic-republican practices and principles of educating blind children, as interpreted by Dr. Campbell and reflecting his own philosophy of independence for himself and others. Devotion to it amounted to a passion with him. The veteran of numerous professional skirmishes and social battles in the United States, he had managed at the prime of life to capture the imagination of various persons of importance in Britain who had offered him the challenge of what might be termed an "instant" institution.

Two English gentlemen of exceptional grace and common sense delivered the British "Establishment" into Campbell's hands. One was Dr. Thomas Rhodes Armitage, an ophthalmologist who slowly lost his sight over the course of a number of years. From that time on he devoted himself to the cause of the blind of Britain, and more than that, of the world. The other was the Marquis (later the Duke) of Westminster, England's wealthiest peer, the only man in horse racing ever to own a three-time winner of the Derby, Bend Or by name. This peer was said to be equally at home at a charitable board meeting or at the track. His family who were proud of this reputation called him "Daddie Westminster." The last non-royal duke, he received the title because W. E. Gladstone

thought him the perfect pattern of what a duke should be. The Duke, while still a Marquis, saw Campbell at a committee meeting, which Campbell left without a guide, going home by omnibus and train and finding his way to these conveyances by himself. Following him the Marquis observed his performance and said, "I'm going to put my money on that man," and he did.

Campbell lost no time in showing him a very large and pleasant dwelling place for a school with spacious grounds, features of which were terraces and a lake. The Marquis, viewing these, gave Campbell the opinion that the setting chiefly offered blind people an opportunity to end their problems by committing suicide with the help of the terrain. However when Dr. Campbell blindfolded him and took him on tour, explaining landmarks, he became thoughtful and asked questions about curriculum. When Dr. Campbell outlined what he had in mind on a par with the best American high schools, the Marquis demurred again, saying he had thought the school was for the poor and that Dr. Campbell's program sounded as though it were for the rich. Dr. Campbell said he was designing it for the poor, but hoped to make it so good the rich would want to go to school with the poor. The Marquis told him he would be butting his head against a stone wall of British prejudice but gave him a check for 1,000 guineas.

The Marquis's donation was the forerunner of an outpouring both of money and personal attention from Britain's obligation-conscious upper classes as well as doctrine-renovating intellectuals. An auditorium, a fine large pipe organ, little practice organs, twenty pianos, other buildings, and even a "swimming bath" were all on the spot when Dr. and Mrs. Campbell's boy "Charlie" began to explore the world about him, which his parents had fashioned. More than all this, in and out familiarly came "eminent Victorians" by the score - achievers and descendants of achievers drawn in by good will, curiosity, or the moral purpose, which has caused them to be so much loved and so much ridiculed. The extremely keen eyes and ears of "Charlie" saw and heard his father receive a special kind of homage from a long procession of personages the world considered important, and more than that, effective: John Bright, Brooker T. Washington, Baroness Rothschild, Thomas Cook (the travel agent), Sir Arthur Sullivan, and sundry personages with names that sound like a cast in restoration drama, as Sir Lyon Playfair, Lord Egerton of Tatton, J. P. Coldstream. And one of the "rich" who found Dr. Campbell's program for the poor up to his standard was Prince Alexander of Hesse Cassel, an extremely gifted German youth who took it patiently when Dr. Campbell made him part with his valet and wait on himself. A very talented musician, his accomplishments as a blind person came to the attention of first cousins on the thrones of Denmark, Greece, Russia, and finally of Britain, when Princess Alexandra became queen. For twenty-five years before that (as Princess of Wales) she had loaned her pianist Fritz Hartvigson to the school.

Steady regulars as friends of the school were the family of Queen Victoria and the Queen herself. True she never visited the Royal Normal College for the Blind, but she sent for the school to visit her approximately every decade. One and all went by special train, hired by the Duke (no longer the Marquis) of Westminster, to sing and dine at Windsor. On one occasion very young "Charlie" saw the Queen as "a kindly grandmother," shaking hands with the children "since they cannot see me" and also with

Dr. Campbell from whom she took a sheet of braille music to be her "personal property." With one hundred pounds in gold she primed the pump of philanthropy, and between the highly publicized visits of blind youth to Windsor the Queen's numerous children visited the college to dedicate acquisitions, give prizes on prize days, and make the kind of commotion which drew from the old snobs of England pounds, shillings, and pence.

The year "Charlie" was born one of the princesses, Louise, Duchess of Argyll dedicated a major building and thought she knew Dr. Campbell well enough to venture an in-group witticism . . . that the school should really be known as the "Royal Abnormal College for the Blind." Her sister, the Crown Princess of Germany, afterwards the Empress Frederick, visited the school informally, sitting for hours in classrooms unaccompanied by a waiting woman or a detective. At one Christmas festival a blue-eyed child, later to be England's stately Queen Mary, with impish tricks tested the limits of her mother Britain's 200-pound Princess Mary Adelaide, who loved and was loved by the crowds both for her girth and her good humor about it.

Only the British addiction to functional anomalies could account for the favor Campbell enjoyed increasingly as time went on. Like Bernard Shaw and the Queen herself, he scolded the British and made them like it. When asked by a Parliamentary Commission why he employed so many American teachers, he said, "When an American teacher finds a child with dirty hands, she shows the child how to wash his hands. A British teacher rings for a servant."

The Queen at least once reminded her hearers that her family had been "invited into this country," implying it was to do something for the English they could not do for themselves, in that case stop religious war. Campbell appears to have thought of himself in England on a somewhat similar basis, in his case to implement a phase of Tory democracy.

In many ways neither Campbell nor the Queen really approved of the British, and in the most personal part of their lives kept rather aloof from British society, though very skillfully manipulating it during working hours.

Francis Campbell, like the Queen, had a very select inner circle of associates, his composed mainly of his imported American teachers (forty-four of them over the years). He did not "dine out" on his unique and dramatic personality and work, and he never allowed his time to be taken up by being "lionized," though he let himself be well publicized, especially when he was the first and only blind mountain climber to reach the top of Mt. Blanc. Although the inner circle included Prince Alexander Of Hesse, who ate and vocationed with the Campbells, the Prince seems to have been a man of comparatively simple tastes, dedicated to music, blending easily and happily with the relatively unpretentious surroundings and exacting routines Dr. Campbell demanded of himself and his pupils, but firmly and prudently declining to scale the Alps with Dr. Campbell.

At educating blind youth Dr. Campbell and his staff worked with the impassioned zeal necessary to produce artistic excellence of the highest caliber, indeed sufficient to penetrate the cantankerousness of the music critics of the London Times when they performed, as they often did, with the Crystal Palace Symphony Orchestra of Sir August Manns.

Such, then, were the childhood environment and father of "Charlie" Campbell, the Outlook's founder. From babyhood "Charlie" had far more contact with his father than most sons do, for Dr. Campbell was an artist at vicarious use of other people's eyesight. In fact he made a habit of securing at least three people's views of anything he considered important. Literally on the shoulders of his father, "Charlie" learned exact observation and reporting, as had his older brother Guy. Both of them became extremely skillful guides of blind people, guides in the sophisticated sense few people comprehend, for it involves more than lending the blind person guided an elbow. It is the graceful transmittal of all kinds of incidental happenings which cannot be taken in without the aid of the eye, and this must be done with as little show as possible. In daily life Dr. Campbell's sons were his constant companions in activities which made a regime as strenuous as that of Theodore Roosevelt. Mt. Blanc was one of many mountains scaled. Less dramatically they cycled from end to end of Britain and all over Norway. This ultimately led to a twelve-wheeled tandem for the pupils of the Royal Normal College, on which we see "Charlie" as pilot in an Outlook photograph. This conveyance was once taken to No. 10 Downing Street for Gladstone to see. It could make a hundred mile run in a day.

Dr. Campbell's reliance on his sons is somewhat poignantly revealed in an exchange of letters between him and King Edward VII's secretary, after Dr. Campbell had consented to be knighted and investiture arrangements were under way. Dr. Campbell asked to have one of his sons go into the throne room with him, but the King demurred, apparently with an excess of zeal to show gentlemen in waiting how independent his new blind subject was. After all, the king had been conditioned by the Royal Normal College to the point where he could make an extemporaneous speech that showed more grasp of the potentialities of blind people than Grover Cleveland had, though Cleveland had spent one year of his early manhood on the staff of the New York Institute for the Blind.

It is not of record who guided Sir Francis at his investiture, though a photograph of him in court dress with his foot on the running board of an early town car shows him solitary.

All during the childhood and early manhood of "Charlie," his father was Dr. Campbell, not Sir Francis. Indeed it was only in old age and with wheedlesome persuasion of a liberal prime minister's office that the redoubtable old American was induced to be naturalized and knighted with the hope of bringing the achievements of blind people before the world. His misgivings on this subject and discussion of them at the Prime Minister's Office bring into focus "Charlie's" mother, Sophia. It was she who gave Asquith's secretary a stern lecture on the merits of the American Constitution and explained its provision against citizens accepting titles from foreign rulers.

Lady Campbell's youthful diary as a teacher at the Royal Normal College, imported from Perkins, has been preserved. It permitted "very little allowance of words," she noted, "but we shall get on." "Get on" they did as she crossed the Atlantic and established her role at the college: intelligent, cool, curious, intrepid. In off hours and holidays she saw an autopsy and with another woman teacher visited Paris in the

earliest days of the Third Republic immediately following the communist terror. But when Dr. Campbell, a widower, became interested in her, she retreated to Massachusetts, and they both visited his parents in Tennessee before she married him. From her father she had inherited a historic house at South Acton, Massachusetts, and even more than Dr. Campbell, she remained American and New Englander in point of view. When he died, she came back to the United States to live.

Royalties, members of Parliament and cockneys she managed with a tact which smoothed the way for Dr. Campbell's work, but deep down underneath, according to one of her granddaughters, she "didn't like the English." Undoubtedly she encouraged her husband's thoughts of returning to the United States, and this he almost did three times: once when he was informally approached about being head of the Illinois School for the Blind, once when he tried to persuade Grover Cleveland to sponsor a Federal program for the blind, and finally when he had hopes of being made director of the Perkins School upon the death of Michael Anagnos. The board of the Illinois School refused to transplant the school to Chicago, which Dr. Campbell stipulated they must do to draw him there; Cleveland was cold to a Federal program for the blind, and when Anagnos died, Dr. Campbell was too old to be considered by the board of Perkins. This "Charlie" was able to ascertain and communicate to his parents, after which they went back to England for good, undoubtedly with somewhat diminished resistance to "the purple net," which H. L. Meneken said the British keep for radicals. This was later evidenced by their being naturalized and titled.

But they made an American of "Charlie," which he seems to have been from the start by temperament, but which was confirmed by his being sent back to the United States for schooling and college at The Massachusetts Institute of Technology. He chose America for his field of operation in a long career of public and professional education in behalf of blind people.

The founder and first editor of the Outlook was a fine example of what Kipling meant by the ability to "walk with kings" yet not "lose the common touch." One of the last photographs of him which appeared in the Outlook shows him in action with the Queen of the Belgians at Evergreen, the site of the program for the American War Blind of World War I.

Fitting company for each other were "Charlie" and Elizabeth of the Belgians. Fifty years ago everyone in the Western world had a positive reverence for the tiny Queen and her tall husband, who defied the might of the Kaiser. Everyone knew the story of her giving up her car to wounded soldiers and proceeding on foot with the retreating Belgian Army. The last time she was in the newspapers before her death, she was making a visit to Communist China in the 1950's, hoping to penetrate the curtain of mistrust which had divided the world. She and Charles Francis Fulkner Campbell had one thing in common, which Lady Campbell truly admired about old school noblesse oblige in Europe. In a lecture to the first Harvard Class at Perkins she said: "I should like to enlarge upon the faithfulness with which English women perform any voluntary charitable work they undertake. If they arrange to be at an office at

a certain day and hour, each week finds them there, with the regularity of a paid clerk." Certainly this was true of the first editor of the Outlook, who was never paid a penny for his services to the journal. In behalf of blind people he made many appearances on platforms with Helen Keller. And she said he was "the perfect sighted companion."

This he had learned as a child in an environment rich in everything human . . . to the point of being "exotic."

PART II

FIGHTING IN THE DARK*

By Dinah Mulock Craik

(This view of the way resources were mustered to found the Royal Normal College originally appeared in the publication called Good Words, September 1873. Mrs. Craik was the author of the Victorian popular novel John Halifax, Gentleman.)

"I was ever a fighter. So - one fight more. The last and the best."
Robert Browning

Until that "last and best" fight to which we all look forward, life is as we only too well know one long battle. The difference is simply between those who fight well or ill - who conquer or are conquered. But we, most of us, fight in the daylight, with our eyes open, our faculties all alive; physical and morally, we see our way before us. We have to fight, but in the daylight. What must it be like to be fighting in the dark?

This thought came over me like a great cloud one day - one bright, sunshiny, yet warm and weary May day - when, having past through the whirl and dust of London streets, I found myself sitting quietly in a beautiful room - one of the most beautiful rooms I ever saw. It was at Grosvenor House, the last of a suite of reception rooms, where generation after generation have "received" their friends - the rich, noble, talented, fair - of the period. Everything that wealth, guided by taste, could do was done. Harmonious colouring, pleasant forms, above all a certain antique dignity and grace gave a soul even to the mere furniture. Over the carpets you saw in fancy the sweeping trains of stately beauties; sitting on the chairs were figures of notable and noble gentlemen - wits, courtiers, statesmen - all ghosts, and had been ghosts for centuries! Those painted faces on the walls - the Titians, the Rubenses - were infinitely more permanent than they.

This splendid room had been emptied of most of its furniture, and a scarlet-covered platform erected in it, whereon were placed two grand pianos with a table and chairs. Other chairs were arranged in rows, filling up all available space. On these chairs gradually gathered a number of well-dressed people, brilliant in all the colours of the rainbow - no, of the modiste! for the innocent "primary colours" in which nature delights are quite out of fashion this year.

Little mattered this, however, to some newcomers who were passing, slowly and with difficulty, between the lines of occupied chairs to the platform: young men, young women, little boys and girls, each one carefully

led, or perhaps two or three at a time, through the strange, splendid room, the strangeness and the splendours on which were alike lost upon them. They were pupils of the Normal Musical School for the Blind. They had been invited by the Marquis of Westminster to a sort of afternoon meeting, to which he had also invited a few hundred more guests, in order that the system and plans of the school might be explained, the progress of the scholars shown, and means taken to collect 25,000 pounds wherewith to build a new college, instead of the three small houses in Paxton Terrace, Upper Norwood, where the establishment has been located since its beginning a year and a half ago.

These facts, with a few more, the Marquis stated, after having welcomed in a few brief words the mixed company to his house, especially indicating in a graceful manner that there would be no "sending round the hat." Nobody would be asked to give, only to listen, and afterwards to judge how far the object was worthy of not charity - the college from first to last disclaims being a charity - but that reasonable help, which every community ought in duty to extend to those of its members whom for no fault of their own Providence has hindered from helping themselves.

He is not a speech-maker - this kindly-looking, simple-mannered gentleman, said to be the richest peer in England - but what he did say was said with good taste, good feeling, a wise brevity, and, above all, with a complete absence of the patronizing air which even good men are prone to when doing a benevolent action. He pleaded the cause of his blind guests with an earnest common sense that would have done credit to any man of business: he told how, somewhat under two years before, Mr. F. J. Campbell, an educated blind gentleman, holding office in the Perkins Institute, Boston, United States came over in order to bring eastward the improved system of education in the west. He tells how his aim is not to compete with existing institutions but to add to them one which has never been attempted here, a school where those who have the strong musical faculty which nature, tender in compensations, so often gives to the blind, may be educated as piano-tuners, organists, and scientific musicians, where also other pupils, who show any special talent, may receive an education such as has been given to the blind in America and France with results so satisfactory that fifty percent of that class, who with us - and we have 30,000 of them - remain helpless objects of charity, are in these other countries able to earn their own living by their own industry, the most desirable aim for every human being.

He finished his speech, listened to with due attention by the full room and by his own wife and children, sitting just below him. I saw her years upon years ago, driving a pony carriage through Trentham Park - the lovely little girl whom Landseer had just painted - and I recognized at once the changed, matronly, but still beautiful face. Evidently she took the warmest interest in the whole proceedings.

Sir Rutherford Alcock, the treasurer of the college and one of its most energetic supporters, followed, as did the Honourable William Ashley. Both spoke in the same practical tone, not taking any sentimental view of the subject, but simply arguing from the obvious premises, that since society must have inevitably a certain number of the helpless blind to

support, it would be wiser for the community, and tenfold happier for themselves, to spend the same amount of money that must be spent to maintain them useless, in making them - or as many of them as can be made - useful and self-dependent. This Mr. Campbell seemed to have a remarkable power for doing. His school has, in little more than a year, become filled to overflowing, even though each pupil pays sixty pounds per annum. Every week hopeless applicants have to be sent away, while the accommodation for those retained is far too narrow for either health or comfort. The system in its general working, the treasurer said, was open for inspection to anybody, but some of its results would then be shown.

At Mr. Campbell's summons there rose up a semi-circle of blind faces, deeply pathetic in their apparent unconsciousness of being looked at or of furnishing anything sad to behold. Most of them were exceedingly placid and even cheerful faces, nothing at all painful about them; and when they began to sing - a chorale of Bach's - their intense enjoyment of the music they were creating was quite refreshing to see. They were all neatly and tastefully dressed, the girls with brightly coloured ribbons in their hair, the colours of which they themselves could form no conception. Many of the faces were highly intelligent and vividly alive with that fearless expression of feeling which we, who see and are seen, learn to disguise or conceal. They sang with all their hearts, and they sang exceedingly well - not by ear, as you might have imagined, but by a scientific system of notation which enabled them to read and execute the most difficult music, vocal and instrumental.

After this came an object lesson, chiefly botanical, and a geography class; when a little blind boy felt his way over an embossed globe to the Indies and back, describing each part he touched and what merchandise he bought there in the clearest and cleverest manner, coming home via Marseilles, where Mr. Campbell stopped him to ask what country that town belonged to and who was at present the president thereof. "Marshal Macmahon," answered the boy promptly, which produced a murmur of applause, as the Marshal had only assumed his dangerous dignity about twenty-four hours previously. But this little incident proved, in a quite fortuitous way, how intelligently the pupils are taught and made to comprehend and apply what they learn, besides being kept en rapport with all that is going on in the busy outside world.

Then there was led forward a little girl,* a small creature of six or so, evidently the pet of the establishment. In passing, she knocked down a heap of books. The Marquis sprang from his chair, picked them all up and the little girl too, and placed her safe on the music stool where, with another bigger girl, she played a duet in a manner quite remarkable for pupils who a year ago did not know a note of music. And she sang too in her clear babyish treble a pretty song about "I love the merry sunshine - it makes the earth so gay."

Watching her bright, contented face the while, one felt that a ray of actual sunshine was being poured in already upon this dark young life, which otherwise might have gone darkling to the end. After the child's song, the applause was faint; but looking round, I saw tears in the eyes of more than one fashionable dame.

There was another exceedingly interesting solo singer, a young girl not out of her teens, who had one of the loveliest soprano voices I ever heard. The expression with which she gave "Mother, O sing me to rest" and Tennyson's "Sweet and low, sweet and low, wind of the western sea" showed that, with proper cultivation, a public singer of a very high order might be made of this poor blind girl. "Poor!" said I? As she stood with a faint added colour on her cheek and a slight tremble in some of her notes until she forgot herself entirely and sang out of her peaceful darkness as easily and contentedly as a nightingale singing out of a midnight wood, you hardly felt that she was to be pitied at all - the happy musician, to whom nature had made so great amends for what she had lost.

Indeed pity was the last feeling excited, or meant to be excited by, this afternoon's doing. After an arithmetical lesson - quite bewildering in the rapidity with which teachers and pupils went through in their heads the most abstruse calculations - Mr. Campbell rose to speak. Every eye was fixed upon him - this brave man, who has originated and carried out so much. I wish I could describe his face, which he himself will never see - very "American," but the finest type of American face, keen, spare, shrewd, at once humorous and kindly. Clearly, he is an energetic fighter, a man of one idea, whom nothing will turn aside from his purpose until it is carried out. The more so as his idea, and not himself, is always foremost. He is one of the very rare instances of an enthusiast - not an egotist.

He spoke entirely of his work, passing himself over in a single sentence: "For me, I have been blind from childhood. I was a poor man's son. When all the education I could get was finished, I found it utterly inadequate to help me make my way in the world. I determined I would make my way, and assist others to do it; and I have managed this, somehow."

Such, so far as I can remember them, were his words. The simple pathos of "I have managed it, somehow," with all therein implied, was indescribable.

Nonetheless, there was not one word of complaint, not one cry for compassion, either for himself or his fellows. "Do not pity us" was the burden of all he said, "do not pity us, but help us, and teach us how we may best help ourselves." To make the blind as independent as possible - to show that although one sense is gone there is infinite opportunity for usefulness and happiness in the four others that are left - that was the aim of all his teaching and his pleading for the wherewithal to carry out that teaching. As he spoke with an earnestness that now rose to absolute eloquence for himself and his pupils, you could perceive by the faces of the young men how they echoed him in their hearts, while among several of the young women great tears came tumbling down from eyes which, though they could not see, could still weep.

I wondered what the audience thought of it - all those fashionable ladies and gentlemen caught in the very height of their London season and suddenly placed face to face with an aspect of life, to them certainly not an everyday view. They, who are supposed neither to toil nor spin,

brought difficulties hard enough for us who see, but to them in their darkness almost insurmountable.

After various performances, musical and otherwise, five o'clock came and the meeting ended with a vote of thanks to the Marquis for his hospitality - thanks well deserved. True, the entertainment would cost him nothing, or what to him was next to nothing, except that which rich people do not always give - time, thought, and trouble. Therefore, when I, with the other three or four hundred of the invited public, had taken my innocent cup of afternoon tea (out of such dainty china) in the next room, I was pleased to see in the room beyond a long table spread with all sorts of solid delicacies. How the young blind folks would enjoy them!

Before the Grosvenor House party separated, Mr. Campbell had announced that there would be a public meeting presided at by the Lord Mayor on the 30th of June for the furtherance of the same end - to try and collect that 25,000 pounds for the erection of the college sum being promised and he having, wonderful to say, himself drawn out the plans. So a few weeks after I found myself in the full whirl of city life, utterly confused by the noise and bustle of the streets, and obliged to inquire with sad humiliation "the way to the Mansion House." The amused policeman pointed to a side door, round the corner, and said, "There!"

I entered, passing up the staircase to a room where, I suppose, half the charitable works done by the benevolent city of London for the last two or three centuries have originated. It was not a beautiful room, by any means; meretricious in gilding, obnoxious in architecture and ornament. But there was a sanctity about it, when one thought of the endless meetings held at that long table "under the patronage of the Lord mayor" and of the thousands, nay millions of money, which have been there subscribed for innumerable sufferers - the victims of "plague, pestilence, famine, battle, and murder," to say nothing of fire and shipwreck, at home and abroad. The boundless charity of the great city would cover all its sins against art. So, though in the full room in which the presence of fat and fashion and the absence of beauty and taste were rather conspicuous, one tried to see only the great number of warmly interested women and men, evidently bent on business, to whom giving even their time cost something, because every minute was worth so many golden guineas.

Therefore, there were no minutes to waste. It was amusing to notice how, while at Grosvenor House the meeting announced for three p.m. did not virtually begin till a quarter to four, here, almost immediately after some city clock had struck thrice, there was announced "The Right Honourable, the Lord Mayor," and Sir Sydney Waterlow advanced and took his seat at the head of the table.

He opened the meeting at once, addressing "My lord," the ever-faithful Marquis of Westminster at his right hand, "ladies and gentlemen" (of the latter there was a large proportion, very much larger than at Grosvenor House), and speaking with great simplicity, clearness, and practicality. He said before he had opened the doors of the Mansion House in aid of the Normal College he had investigated its claims in

every possible way, and he looked like a man who would do this and not grudge any amount of conscientious trouble in examining thoroughly whatever business he undertook. He had examined everything and considered the college fully worthy of the 25,000 pounds wanted to build it; he then left its advocacy to those who knew all about it - its president, the Marquis of Westminster, and its treasurer, Sir Rutherford Alcock.

Thereupon, these two successively spoke. Their facts and their arguments were nearly the same as those given at Grosvenor House, especially the one argument - I think unanswerable - that, granting there exists in the community a class necessarily helpless and dependent, it is wise, nay even economical, for society to educate it as far as possible into independent, happy self-help, rather than to pension it off in hopeless idleness. Most public meetings are very much alike, but I was struck with the tone of this one, the general absence of "floweriness" in the speeches, their conciseness and point, and the air of business-like attention noticeable in all present - these much occupied city men, who must do even their benevolence as briefly as possible. There was another thing - a little incident that accidentally tested the patient courtesy which, they say, makes our English aristocracy some of the most thoroughly "well-bred" people in the world.

When Sir Rutherford had ended his speech seconding the resolution and the Lord Mayor was just putting it formally to the meeting, there rose up from behind his lordship a quite unexpected vision of a tall, thin, grey-haired, rather discontented-looking gentleman, who "wished to say a few words." Of course he said them, and they consisted of an angry protest against this college for arrogating to itself the credit of being the only musical school for the blind. "Why, not long ago," he urged, "I was present at a performance of a cantata, or sonata, or something about the Prodigal Son done, and done very well too, by twenty-five blind people, pupils of the society for teaching the blind to read." And then he went on, rather violently, to urge how unfair it was of the college to put itself in rivalry with old-established institutions; with much more to the same purpose, calculated to produce all the bad effect which fault-finding usually does produce on a certain order of minds, who, not having any particular mind of their own, are always ready to side with the last speaker. The gentleman might have done a good deal of harm, had he not fortunately stood in his own light by a certain want of calmness in his asseverations. As it was, when he ended there was an awkward silence. Then, very quietly, and in a perfectly courteous and unimpassioned manner, the Marquis rose and also said "a few words."

He had, he remarked, the greatest pleasure in confirming all that Sir Thomas Gladstone had stated about this performance of the "The Prodigal Son," at which, being an old subscriber to the institution, he had himself been present. It was, however, an institution for teaching the blind to read. If to their other instruction they added music, so much the better. He was exceedingly glad to hear they were sending out twenty-five educated musicians. "But," added the Marquis, "the Normal College, being especially for music, hopes to send out two hundred and twenty-five. It does not interfere at all with existing schools. It only adds to them one more, and it must feel extremely indebted to Sir Thomas Gladstone for giving an opportunity for this explanation."

Then came a sentence or two from Sir Rutherford Alcock, and another from Mr. Campbell, explaining that when he first came from America he went to this same institution and had been especially desired by them to start for himself, independent of them. After this the Lord Mayor rose again, the temporary fault-finder was silenced in a storm of hearty applause, and the hindered business of the meeting was continued cheerfully.

Canon Barry came forward and said a few energetic sentences, but the speaker who followed him was one at whose appearance a murmur of half-suppressed feeling ran through the whole room. All the world knows Professor Fawcett, M. P. and his sad story; how, in the very height of a brilliant university career, in which he was as notable for physical as for intellectual vigour - the best skater, swimmer, oarsman, enjoying life to the full, a sudden accident struck him with total blindness; how, since, he has fought nobly on - the fight in the dark - till at last there came and stood beside him what, I fancy, while men are heroic and women are loving, no blind man need ever want, a good wife to be his eyesight. All this is too well known to make the mention of it here either painful or objectionable. When he rose to his full tall height and faced the audience, that strong, grave, placid, sightless face, everybody knowing who he was and why he came there; it was an argument more powerful than a hundred speeches.

Nevertheless, I would I could give that speech in all its manly pathos; a voice calm, brave, patient, coming out of that perpetual darkness, the mystery of which, strive as we may, we can never understand no more than we can understand the still deeper mystery, why it should be so; or whether it was the better or the worse for being in this case a darkness that fell at noonday.

Professor Fawcett said it was obvious enough why he came here - to speak of that which he could understand - adding, with a simple dignity of accepted suffering that made one feel ashamed at having ever murmured at anything, "After all, in spite of every alleviation - and none have more cause than myself to be grateful for the unceasing tenderness which is shown to the blind - after all it is a lot hard to bear - very hard to bear." Here the voice broke a moment, the strong man's voice, so proudly uncomplaining, then strengthened itself again and went on to argue, with an earnestness learned out of bitter experience, that the kindest thing which can be done for the blind is to make them in every way as self-dependent as possible.

"I have often heard," he said, "in similar meetings to this, people who would not willingly wound any human being use in talking of the blind a tone of patronizing pity which is the most wounding thing of all. Help, not pity, is what we need - sympathy, encouragement, but, above all, practical help." And then he went on speaking much as the others had spoken, but out of a knowledge from which they were shut out. He was listened to with a breathless silence which, when he sat down, broke into an irrepressible shout of applause. It must, I think, have rung in the heart of his wife, who accompanied him, as she does almost everywhere, and made her prouder than ever of her blind husband.

The next speaker - he had good aquiline, what people call "aristocratic" features, and that high, narrow shape of head which, curiously enough, I have gradually seen associated with his peculiar phase of religious belief - was easy to recognize as Lord Shaftesbury. He began by paying a generous and respectful tribute, "although opposed in political opinions," to Professor Fawcett. What he had to say on behalf of the college was said with the clear conciseness of a man accustomed to business and the dignified weight of a peer of the realm, conscious that his opinion was valuable. Throughout his speech ran a certain scriptural phraseology not surprising nor ungraceful in a man who is known to be deeply religious in life as in outward profession. His good word for the college was a good thing to have.

So was that of the speaker who came next, so different from Lord Shaftesbury that the contrast was as striking as that of the statues of Pitt and Fox in the gallery of the Houses of Parliament. Who this gentleman was I have at this present writing not the slightest idea; I did not catch the name. He was a short, stout man, a man of the people. His h's were not altogether perfect, and he spoke with a strong provincial accent; but he made a most capital speech - concise, forcible, full of earnestness and humour. He told how he himself had vainly tried to establish a school for the blind at the east of London. They were eager enough to learn. Brushes and brooms they could make in quantities, ready to sell, but nobody would buy. "Sighted" workmen could make them much better at lower prices. He had spent, he said, no end of time, labour and money upon this school, and had to give it up as a total failure. Then he went lately to Mr. Campbell's establishment at Norwood and found it a complete success. He didn't know how it was, he said, but Mr. Campbell had certainly the knack for creating success. He urged earnestly the subscribing of this 25,000 pounds, which he treated in a light and cheerful manner as being to the city of London a very little thing. And then, apologizing for his rough and ready form of speaking, which was, indeed, the most admirable form he could have chosen, and all the more so from its being such a contrast to his scholarly predecessors, the honest man sat down amidst prolonged and hearty cheers.

There were a few more words from another city gentleman, who seemed to consider that great misfortune the blind had suffered was in not being able to see the Shah or the Lord Mayor's recent entertainment to that potentate; from one or two others, evidently well known - though, alas! not to me - and then with a vote of thanks to the Lord Mayor and another excellent little speech from his Lordship the meeting ended. It had not been without its fruits, as the number of subscriptions showed. Sir Sydney Waterlow announced that the list would still be kept open, in that familiar Mansion House Treasury which yearly receives so much and pours its benefits over such a wide-extended field. Let us hope that, after all, our honest nameless friend may prove right, and that the long sum of 25,000 pounds is, after all, easy enough to gather in.

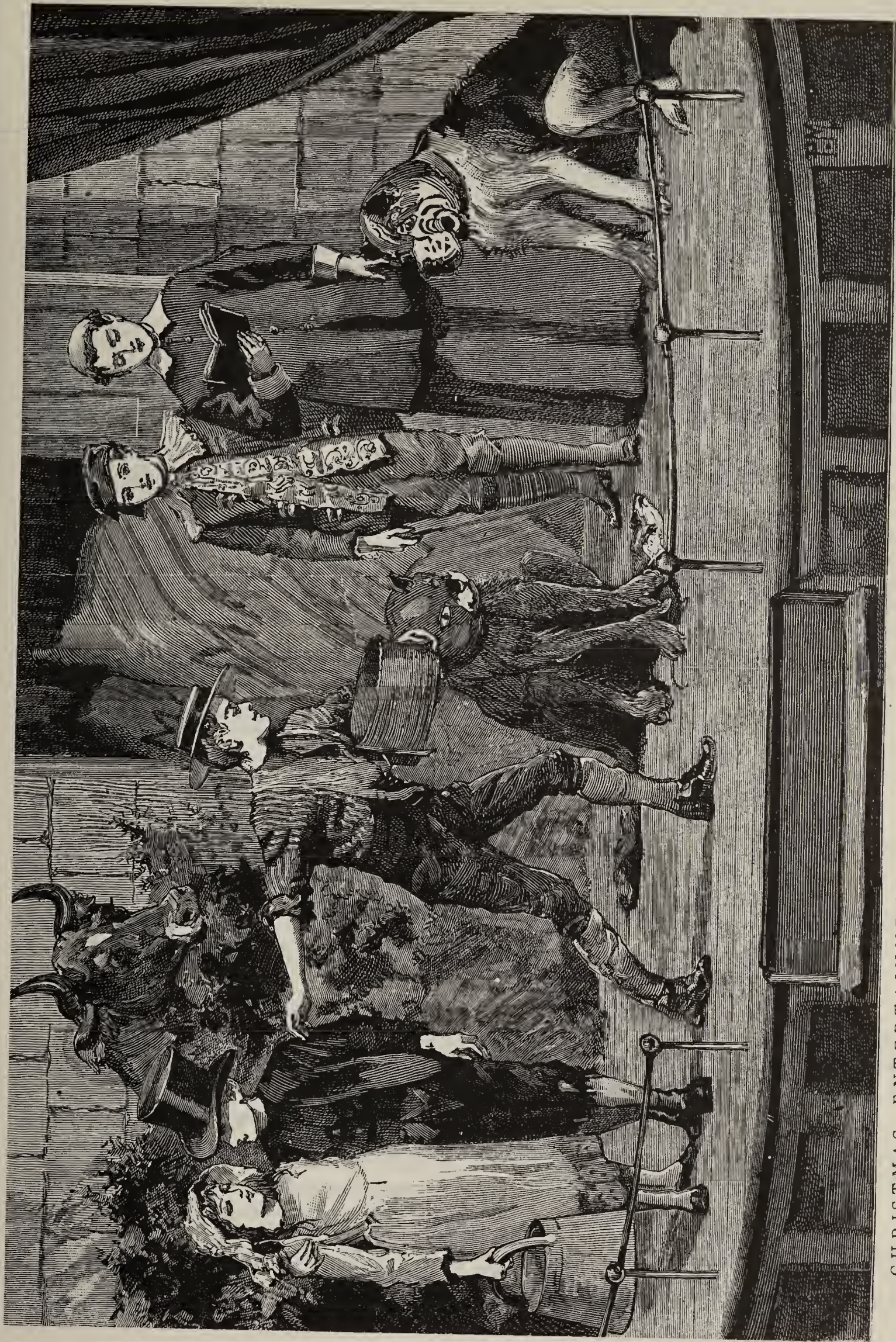
One thing I thought of with an amused pleasure as I threaded my way out again into the bewildering streets, trying to remember everything so as to tell the story of these two meetings in the east and west, in a form that would carry the tale and the plea as far as possible. The idea of this "Royal Normal Musical College for the Blind" is entirely American.

The principal and most of the teachers are decidedly "Yankee," and the scheme itself comes from Boston, where the Perkins Institution furnished the basis of the system of instruction which has been so successfully transplanted to Norwood. Truly Brother Jonathan need not think we are jealous of him when we thus gladly accept his helping hand; when the great, the wise, and the good among us welcome kindly and aid gladly this solitary blind American, who wants to benefit our countrymen as he has benefited his own. Shall we not help him, we that are in the happy, cheerful light, him and them, whether English or American matters not, who thus bravely go on lighting in the dark?

If so, let any one who chooses go, any day, to those three little houses in Taxton Terrace, opposite the low-level station of the Crystal Palace, and watch for an hour or two the work and the play of the large little family there, in their contented darkness. How happy they are - how merry even; how earnestly they study and how gaily they amuse themselves must be seen to be understood. Having seen, let the visitor judge for himself and act accordingly.

* Selections therefrom are reprinted here with minor modifications, see page 54.

* Amelia Campbell, see page 56.



CHRISTMAS ENTERTAINMENT AT THE NORMAL COLLEGE FOR THE BLIND, NORWOOD
"THE HOUSE THAT JACK BUILT"

PART III

REMINISCENCES OF THE FIRST GIRL STUDENT*

(From 1872 and Onwards)

By Amelia A. Campbell**

How well I remember my first interview with Sir Francis, then Mr. Campbell. It brought me so much lasting joy and so completely changed the course of my whole life that I must fully describe everything that happened on that memorable occasion.

One raw cold day at the beginning of March, 1872, Sir Francis came to Liverpool looking for children with the idea of starting a college in London on the American system for the Higher Education of the Blind. Some ladies who had known me from infancy and had always taken an interest in me took me to see Sir Francis, and child though I was, the very sound of his voice at once made me feel that he possessed some sort of resistless power which I had never previously observed in others. I stood close beside him, a tiny child with hair cropped and as thin as a rake. I can scarcely tell whether I felt frightened or amused, but I was not allowed to remain long in silence for Sir Francis began to question me.

When I discovered that his name, like mine, was "Campbell" I asked him if he were my father, to which he replied, "No, but if you come to London some day, I will try and be a father to you."

This duty he kindly and nobly fulfilled till he set me on my own two feet and gave me a good start in life.

He asked if I could sing. I said, "Oh! Yes, shall I sing 'The Wintry Winds are Blowing?'"

He said, "Oh! That is a very good song for this time of year."

So I began to pipe up in a high shrill key but had not got very far before I broke down, both in words and music. Sir Francis was very kind and said it didn't matter. He could hear, with training, I ought to have a good voice. Then he asked if I could do arithmetic.

I said, "I can only do little sums in my head," so he at once began with this sum, "Supposing I went into a shop and bought forty pairs of boots."

Here I interrupted with the eager exclamation, "What a very rich man you must be!" He laughed and said, "But on my way out of this shop, I dropped ten pairs," to which I again exclaimed, "That would be clumsy, but the shop people would pick them up for you."

"Never mind about that part of it," said Sir Francis, "but how many pairs would I have left in the bundle?"

I at once said, "Thirty."

Then he asked me if five were nine, what would fourteen be? This puzzled me completely and I told him I didn't know that the numbers could ever change places with one another. Then he asked me if I could scrub or wash dishes, to which I replied, "Not yet, but I am sure I could learn to do this."

I heard him say to one of the ladies, "She will do," but I had no idea that this was referring to me. At last he asked me if I thought I should like to be a teacher, and I told him that I was in the habit of playing school with steps and stairs and thought them all my little scholars.

He said, "That is a very good thing to do, but how should you like to come to London and learn to be a teacher?"

Of course I felt delighted at such a prospect, but did not see how it could possibly be managed. Three weeks later, however, Mr. Leighton of Liverpool brought me and a boy, John Scolah, up to Paxton Terrace, Anerley Hill, at which place our college was first situated.

That block of three houses which originally had been shops is, I believe, still in existence, and delightful times we had there for two years. I was the very first girl student for three weeks, having arrived on April the 1st, which accounts for my being the court jester of this establishment, if not the April Fool. Then two girls much older than I joined me. They were also from Liverpool and had known me from a baby.

It can be easily imagined how family like we were in these first days, with only three pupils, but this state of things did not and could not last for long, and presently a few Scotch girls came to us from Glasgow and Edinburgh. They were very jolly girls and soon made themselves at home, but we began to feel that even with seven pupils, it was getting more and more schooly. However, we managed to have lots of fun one way and another, so that when we had to move to a bigger establishment the shock was not so violent as might have been expected.

For some years teachers were ladies and gentlemen from America and very splendidly they taught us, not merely in class time, but they became personally acquainted with everyone of us and were never weary of helping to develop our characters in every possible direction.

Our first governess was Miss M. C. Greene (see Part V), who had taught at the Perkins Institution for the Blind. This lady was in many respects very wonderful. She was so highly cultured that we use to call her "the Walking Encyclopedia." She seemed to know about every subject under the sun, yet was so modest and unassuming with all those learning that one was never afraid of confessing ignorance in her presence, for she put things right in such a friendly way that one never felt ashamed

or uncomfortable. Indeed she use to tell us that it was far better to make mistakes with real friends than to have strangers either laugh at us or scornfully correct us.

Miss Greene took immense pains with us at the table and beautifully taught us the proper use of knife, fork and spoon, even showing us how to judge what size the piece of meat was when cut from the main slice by passing the knife rapidly and skillfully in a little circle round the fork. This proves an unerring guide to a blind person who can thus detect not only the size of the bite but whether it has been properly severed from the slice. If it has not been neatly cut off, one can soon discover a little piece hanging like a string from the fork. Personally I have been thankful all my life to Miss Greene for so aptly instructing me in table manners. She could come down to the slightest detail, even telling us that it is not customary for the sighted to masticate their bread and butter with their lips apart. Many little details which it would never occur to an ordinary person to explain would be most fully gone into for our benefit by Miss Greene. She even taught us how to use a pocket handkerchief properly. Her lessons were always interesting, but she especially excelled as a teacher of mathematics. She used to take us regularly for long walks and it was a pleasure to hear how beautifully she could converse. It was not that we actually learned so much from Miss Greene as that she taught us how to educate ourselves and made us feel that we should not let a day pass without learning something we had never known before.

Another of our fine teachers was Miss Faulkner, now Lady Campbell. Her classes were always immensely interesting, especially those in geography, natural history, physiology, and objects. She was a very strict disciplinarian and made us work hard and intelligently. When one got a word of praise from her one could feel justly proud, as such a word would never be given unless it had been thoroughly earned. She used to do all in her power to encourage us to read for ourselves and to learn to amuse and entertain ourselves so that we need not always be depending upon our teachers for help and proper organization of games.

Another excellent teacher we had was Miss Clarke, also from America. She was a great linguist and fired my ambition to acquire other languages as well as English. I had a year's course in Italian with her which has been most helpful. She also gave me French lessons and even a little touch of Spanish now and again. Like Miss Greene, she was also very cultured and did much by her influence to perfect our manners.

Miss Morse and Miss Carnes were two other excellent teachers, full of life and energy, running races with us and playing all kinds of games. They even helped us with dancing. It was a delight to hear them teach, their voices always being so brisk and energetic.

We also had some very clever gentlemen teachers, among whom I must mention Mr. Hawes, who gave me some remarkably good lessons in elocution. Many of the recitations he then taught me I can remember to this day.

We were also taught by Mr. Allen, Mr. Ring, Mr. Leonard, and others.

Our tuning-master, Mr. J. W. Smith, was a very clever man, full of wit and humour and so tremendously anxious for the success and fame of our college.

Sir Francis was most particular that our teachers should be of the very best and he would often himself come into the classes and listen to how the lessons were given, and whether they caught on or not with the students. The great advantage then of having our college here in Norwood was the close vicinity of the Crystal Palace, where we got so much musical training. In those days there were short Orchestral Concerts from twelve to one and from four to five and we were allowed to go to them as well as to the Saturday afternoon Classical Concerts. The programmes were always most carefully read to us and we had to sing the important themes of symphonies, overtures, etc., before we heard them played. In the early days it was thought best to have our own orchestra, and this part of our training was undertaken by Mr. Strachauer, a very gifted musician with a somewhat hasty temper, which our out-of-tune playing must have intensified. Still, he worked most patiently with us and we could play a few simple movements quite creditably. The great advantage to us all was that we learned to know the sound, compass, size, etc. of every instrument, which added greatly to our enjoyment of the Palace Concerts.

Our orchestra, however, did not continue very long, as the Committee feared some unwise use might be made of the various instruments later on. We were all very grieved when this part of our work was finally abandoned.

Before going any farther let me comment upon the wonderful way in which Sir Francis trained our choir. He went in very largely for all shades of expression and would often make us sing a passage a good many times over till he got exactly the rendering he wished. On several occasions I remember he took rather high difficult passages for the treble voices and made them sing them as softly as possible. When we thought we could not possibly sing any softer, he would shout out, "That is much too loud; I want it divided by four."

We used to feel quite frightened to try again after such a remark and sometimes in our efforts to please him we could produce nothing but breath, whereupon he would call out, "Oh, don't get flat, and don't get fainthearted; keep on trying and we shall get just what I want by and by."

We trebles once had a terrible time over that famous madrigal "The Silver Swan." So anxious was Sir Francis to get one passage very, very softly that each one of us had to sing the part alone on the words "leaning her breast, against the reedy shore." This particular passage begins on the fifth line F and that vowel "e" in "leaning" is particularly hard to sing softly. The least contraction of the throat renders this vowel thin and squeezed up. Not one of us got the passage right till after several trials. It was described as very flat, breathy and inclined to be "reedy." We had several such trials in "Break, Break, Break," especially on the words "But oh for the touch of a vanished hand and the sound of a voice that is still." The "stillness" had to be so intense that one could hear the flight of a robin five miles away.

All the same our training under Sir Francis was most finished and artistic and he would hammer at complicated works for months at a stretch till we got them just as he wanted them to sound. His memory was perfectly marvelous, for he could teach each individual part of long works, such as "Brahms Requiem," "The Golden Legend," eight part motets by Mendelssohn, "The Hymn of Praise," "The Messiah," and many other very long and most intricate compositions. We used to sit spellbound just to hear him play a first bass or a second tenor or an upper alto or a second soprano part quite separately and without the least hesitation. He astonished us by his accuracy in many of Fugal Choruses by Bach, Handel, and other classical masters. Right up to within three years of his death, this wonderful memory of his was as good, methodical, and fresh as the very first day I met him. How often have I wished he could have left that blessed gift to me; but yet how thankful I am that he trained my mind in so many ways and on so many subjects. I often rebelled at the things he insisted I must study and learn, but now I only wish I had drunk as deeply of the fountain of knowledge as he so ardently desired for me.

It was often amusing when we failed to sing bright, gay things with proper feeling to see how he would dance about the platform to represent a gay sportive youth or a bright sunny May day with lassies and lads going nutting in the woods. His devotional feeling too was most impressive and the care with which he taught us to sing the simplest hymns and the great anthems was truly touching. I shall never forget how beautifully he made us render "Lord for Thy Tender Mercy's Sake" and also "The Evening Hymn" from the "Golden Legend" which much impressed Sir Arthur Sullivan when he visited us.

It seemed to us that if Sir Francis were listening to a hundred voices he could pick out at once the voices in every part which were not properly blending with the whole. This blending of voices formed part of the secret of his success, for if we failed to produce an unsympathetic blending of voices, he would take a part song, such as "The Water Lily" by Gade, and put one voice on each part, thus turning it into a quartet. Each quartet was kept ceaselessly singing till the blend of the voices was as perfect as it could be made. No one voice was ever allowed to stand out by itself. If any poor individual erred in that direction, he or she was very speedily called to order.

Sometimes, either from lack of attention or a slip of the tongue, one would come out either with wrong notes, wrong phrasing or wrong words. And if these faults were not immediately corrected, Sir Francis would say in a very stern tone, "If you can't do better than that, you had better leave the choir and the establishment. Don't stop to pack your box. We'll do that for you and even send it to the gate so that you will have no trouble in that way."

Almost weekly someone was told to pack a box, but such dreadful outburst were of short duration and very soon we were restored to favour and things flowed on happily again. In connection with our choir work I ought to say that we were required to know a tremendous amount of music of all styles and periods so that if at any time we were asked to help at concerts or to give concerts, we could have several programmes on hand. One of Sir Francis' everlasting mottoes was, "Increase your repertoire."

You can never know too much, either in the way of solos, part songs, organ pieces or piano works." At one time our choir was quite celebrated for we had a number of excellent voices, so that we could travel about the country giving concerts and church services in aid of the college.

Sir Francis used to describe himself as the biggest beggar in the kingdom and certainly the first thirty years of the college's life were spent in touring round the country in order to get the place known and to obtain money from the public for its support. We have given concerts in Glasgow, Edinburgh, Perth, Dundee, Leeds, Bradford, Sheffield, Liverpool, Brighton, Margate, Bacup, and other places in Lancashire, Belfast and various places in and about London, such as St. James' Hall, Albert Hall, Steinway Hall, Aeolian Hall, Charringdon's Hall, Queen's Hall, etc., etc.

One of our most important tours was a trip to America in 1887. Only very few of us could go because of the expense, but we had a most delightful time visiting New York, Brooklyn, Boston, Washington, Philadelphia, and Baltimore. We did not go out west as we were only over there for eight weeks, but how the dear American ladies and gentlemen spoiled us! When the time came for our voyage back to England, I felt so sorry to leave them that I asked a lady if she could not find me a job to turn a mangle so that I need not leave America.

We had to work pretty hard those two months, sometimes giving a long church service in the morning, a concert in the afternoon and a concert at the town hall in the evening; and this sort of thing would go on day after day with sacred services on Sunday. Still we were always getting more experience and the people were so delightful that we did not mind how much we did to give them pleasure.

Before we started for America, in order to secure a better reception there for us, Queen Alexandra, who was then Princess of Wales, graciously asked us to go to Marlborough House and perform various items of our programme to her. This put off our voyage a week, but you can imagine what a good advertisement it was for us when the various American papers stated that by command of Her Highness, the Princess of Wales, the young artistes had to visit her, and their tour would therefore be a little postponed.

The Princess received us most kindly and I had the honour of singing twice to her. The first song she selected from the programme was "Let Me Dream Again" by Sir Arthur Sullivan. Her Royal Highness told me that it suited me very well and she hoped I would sing it a good deal in America. Then she selected as my second song a French serenade which she also seemed to enjoy. How glad I was that when she addressed me in French, I was able to answer her! Otherwise she might have thought I had just learned the French words and knew nothing more of the language. She very kindly complimented my French accent.

One of her questions was "Are you fond of sailing?" to which I replied that I was afraid I should not like the sea. She told me that she was nearly always ill crossing over to Denmark, but she hoped we should all have a very safe and successful journey. It was a joy to me to feel that I could not only understand all this French but was able

to answer correctly. Her Royal Highness also appreciated our little choir and thought the pieces selected would give great pleasure abroad.

Whenever we gave concerts in America, we were presented with lovely bouquets of flowers. I brought several of the bouquet holders back to England and kept them till they could no longer hold together; but it was a grand thing to receive such floral gifts, as I do not remember having had any such here in England at concerts.

I must not forget to mention in connection with tours that we once went to Germany and also to Belgium, where we sang at the Palace to the King and Queen.

(Unfortunately the memoirs of Amelia Campbell contain no more regarding the Royal Normal College, but she is also mentioned by Alfred Hollins whose reminiscences appear in Part IV of this series of papers.

*
Selections therefrom are reprinted here with minor modifications, see page 64.

**
This was written after Miss Campbell had been teaching at the Royal Normal College for many years, see page 64.

PART IV

REMINISCENCES OF A CONCERT ARTIST GRADUATE*

By Alfred Hollins

(The following selections are from A Blind Musician Looks Back [1936], a book of memoirs by Alfred Hollins, a student at the Royal Normal College, who had an outstanding career as an organist.)

My father and I arrived at the Royal Normal College about eleven (on January 2, 1878) and were directed to Mr. Campbell's house - a separate building in the grounds - and shown into his library. The first sound to greet us was a chorus of singing birds in a large aviary: a good omen. Campbell loved all birds and animals, and later on he had a kennel built which contained, first, two fine St. Bernard dogs, and afterwards a great mastiff.

To tell all about the college and its first principal would fill a book; I can do no more than give an indication of Francis Joseph Campbell's great work for his sightless brethren. Blind himself, his aim was to give his pupils the highest possible education, not only in music - which came first - but in every branch of scholastic work. He sought to equip them to take part in life with their sighted fellow-beings on equal terms and to gain such recognition as might have been theirs had blindness not handicapped them.

There were then three buildings: The Mount, Mr. Campbell's house, and the main building, known simply as The Building. Although not the first home of the college, which had begun with one or two pupils in two small houses in Paxton Terrace, lower down the hill, The Mount was the first property purchased. It has extensive grounds laid out in terraces, and there is a large meadow, acquired later. Campbell was an ardent advocate of open air, physical exercise, and as much playground as possible. This was at the time a new idea.

The Building, a four-story structure, long and narrow, without any pretension to style, was specially designed for college purposes. The hall, which holds about five hundred people, was placed on the second floor, with a large platform and the organ at one end, and a small gallery - entered from the third floor - at the other. When my father and I went into the gallery to get a good view of the hall we noticed a large Christmas tree immediately in front of the platform. The annual Christmas Festival had been held on the previous day. It was the custom to give a concert and display of the pupils' parlour tricks, and for the Christmas tree - for many years in succession the gift of the Archbishop of Canterbury - to be unveiled by a lady of high rank such as the Princess Frederica of Hanover. On the first evening the boys played games and

were given presents from the tree, and the second evening was devoted to the girls.

* * *

Everyone was full of the first orchestral concert under the auspices of the college, which had been given in St. James' Hall the previous year. It was a bold and original venture, involving the expenditure of a considerable sum of money; but Campbell believed it would be worth it, and he was right. He wanted to draw the attention of leading musicians, music critics, and the musical public to the college and its work, and especially the musical part of it. He engaged an orchestra of 119 players under the direction of Mr. (afterwards Sir) August Manns, the conductor of the Crystal Palace Orchestra, whose Saturday concerts were even then widely celebrated. Mr. Frits Hartvigson, the piano professor at the college - of whom there is much to tell - played the Tschaikowsky B flat minor Concerto for the first time in this country. A young singer, Herr Henschel, who was beginning to make a name for himself, sang. The college students took part with the orchestra in Gade's "Spring's Message" for chorus, piano, and orchestra, and a brilliant young blind pianist named Schwier, one of the pupils, played the piano part. With such an original programme and such original soloists it is not surprising that Campbell succeeded in his object. The Tschaikowsky Concerto alone gave the college a good press, for it raised as great a storm of adverse criticism as it now raises storms of applause, even though nowadays the ultra-moderns condemn it as being over-tuneful. In a critique I read recently it was described as restaurant music.

Another of many thrills that Wednesday afternoon was to learn that the great E. J. Hopkins (afterwards Dr. Hopkins) was our organ professor, and that Wednesday afternoon was his day. Young as I was, I had already learned to appreciate Hopkins's compositions. I did not come into contact with him until two or three months later, but I found myself under his influence almost at once. He used to take the choir for the last hour of his visit each week, and even those who did not sing had to be present. When I went to the college they were studying certain numbers from "The Creation" and "Elijah," and I remember my delight at the singing of the solo part in "The Marvellous Work" by one of the girl pupils, Annie Jones. I had not previously heard a soprano take high C, and thought it a wonderful achievement. Hopkins accompanied on the organ. His clear, crisp touch, and registration came home to me at once.

Another important staff member was Mr. Young, the tuning-master. He had been a foreman in Broadwoods' factory and knew everything there was to know about the making of a piano. He had charge of the boys and men, there being no schoolmaster at that time, and he was a good friend. Both the college and its numerous pianists (professors and students) of two generations past owe a great debt of gratitude to the firm of John Broadwood & Sons. They presented to the college a Concert Grand for the hall, and later on, when this was transferred to one of the rooms and used for teaching, they supplied the hall with a Grand free of charge, changing it two or three times a year. They allowed Mr. Young - perhaps the best all-round man in their factory - to become tuning-master, and arranged for tuner-students, one at a time, to go to their factory for

six months to gain experience. Other leading piano-makers did the same for tuner-students.

In 1878 there were in the college three organs built by Forster & Andrews two years previously: a large three-manual in the hall, a small one for the boys and a similar small one for the girls. Each of the small organs consisted of one manual and a full compass pedal board. All three were supplied with wind - from three large feeders in the basement, worked by an old-fashioned gas engine in a wooden house immediately outside the building. The little organs were very useful, not only for getting up the technique of a piece, but also for committing to memory from braille.

Frits Hartvigson gave biweekly piano recitals at five o'clock every Tuesday and Friday, and I heard him on my first Friday at the college. It was a thrilling experience. He was then playing Grieg's works as they came out, and at this, the first recital I heard him give, he played the Poetic Tune Pictures. I shall never forget that recital as long as I live. I cannot even begin to describe my delight at those beautiful and unexpected harmonies and at Hartvigson's playing. He had none of the sloppy sentimentality common at the time, and some might even have thought his playing cold. His touch was beautifully clear and crisp, and he was never carried away by the craze for excessive speed, so prevalent today. A year or two after I went to Norwood he injured his arm by over-practising. This injury eventually compelled him to give up playing in public, but he still continued his recitals at the college. Having the gift of sight himself, Hartvigson was a man who strove to help the blind by imparting to them all he could of his musical knowledge and skill. As some of my readers will recollect, he was a Dane by birth and at one time Court Pianist to the late Queen Alexandra when she was Princess of Wales.

In the morning at half past six piano and organ practising began, and the babel of a dozen or more pianos was at first a strange and rather bewildering experience. Most of the pupils seemed to be practising one kind of slow exercise. I had never before heard anything like it. Afterwards I learnt that it was the first exercise in Plaidy's Pianoforte Technique, and before long I was practising it myself. Campbell had studied under Kullak and Plaidy and insisted on a thorough grounding in technical work. I think he overdid it.

Probably it was on my second day at the college that Campbell started me on Plaidy. He gave me a regular lesson at least once a week, and I soon became a favourite pupil. He did not at once send me to Hartvigson, but for a month or two placed me under Miss Campbell, who eventually became a lifelong and intimate friend. Miss Campbell was an orphan, not related to Campbell himself. She was his first pupil, having entered immediately on the foundation of the college in 1872, and she remained there until her death in September 1931.

The lessons Miss Campbell gave me were very happy times. When I began work with her she was reading and thoroughly enjoying Mendelssohn's letters to his sister Fanny, and she gave up much of the lesson time to telling me all about them. A good many hours were spent in talking about music and musicians, and in that way I gained much in general musical knowledge.

It was not very long before I was singled out as having special musical talent and placed under Hartvigson.

All young students make a hero of their teacher, and rightly so. Hero worship helps in the pursuit of studies. I cannot speak dispassionately of Frits Hartvigson, for I owe to him whatever success I have had as a pianist. His method of teaching was so entirely different from anything I had previously known that for some time I found it difficult to assimilate and appreciate it. In point of fact he had no actual method in the present day sense of the word. His underlying idea was to teach blind pupils to use their hands gracefully and as nearly as possible like sighted people. Until I came under Hartvigson's influence, like many blind pianists I had had a certain hesitation in lifting my hands from the keyboard, especially in wide skips such as those in the opening of Liszt's E flat Concerto. Hartvigson, realising that hesitation in the touch of a blind player is fatal to success, especially as a public pianist, taught me to play with certainty. Hesitation spoils a player's attack, and his audience is apt to watch him with a nervous discomfort that makes appreciative hearing impossible. But even sureness of touch, important as it is, does not mean everything. The immense development of pianoforte technique and the executive demands made by modern compositions have introduced difficulties which for a blind man are probably insurmountable, and I believe I am correct in saying that no blind person has yet become a really successful and outstanding public pianist. Probably I have been as fortunate in that sphere as any other blind man, but I am known only as an organist, and my work as a pianist has brought me neither fame nor money.

* * *

The beginning of my second term at Norwood meant looking forward to uncountable months from October to August, and for the first few days after getting back I felt rather miserable. But the misery did not last long, for there were many new interests. Most institutions have their changes, but none could compare with Norwood for rearrangements, either of work or quarters or both, as each new term came round. The little boys might have the top corridor; they would return to find it allotted to the girls. The timetable would almost certainly be altered, usually to our annoyance until we got used to it, when the new became the old and suffered a change - again to our annoyance. What interested me most on going back was a new Crossley silent gas engine for blowing the organs.

Just before the end of my first term at Norwood we were told that Prince Alexander of Hesse, afterwards Landgrave of Hesse, was coming as a pupil. He arrived soon after the new term began (October 1878). He was then nearly seventeen, three or four years my senior. To us youngsters he seemed older. Except that sometimes he had his meals with the Campbells, and enjoyed the privacy of a sittingroom and bedroom on the top corridor where we boys slept, he was treated in the same way as the rest of us. He joined in our games and submitted to our raggings with easy grace and good temper. His readiness to adapt himself to conditions very different from those in which he had previously lived was remarkable, and although none of us could at the time have put our thoughts into words, we felt the charm of his natural courtesy.

Another endearing quality is the Prince's unfailing memory of any with whom he has come in contact. For instance, when in later years he visited Glasgow he sought out one of the old Norwood pupils whose address he had kept in mind. On another occasion, when we were all dining together at the college, I heard him ask Campbell what had become of Mrs. So-and-so, one of the women who scrubbed the floor of the hall. (How we used to hate it when our hour happened to fall on a scrubbing day! Even now I can smell those wet boards and the soapy water and hear the irritating noise of the scrubbing brushes.) Nor are trifling incidents forgotten. It was during the same dinner that I was asked a question which greatly amused me: "Hollins, does the Swell pedal of the big organ still squeak?" I had to admit that it did.

It soon became clear, even to us youngsters, that Prince Alexander was intensely and naturally musical, so much so indeed that he could never accustom himself to memorising from braille music or from having the notes read to him. But with great perseverance, after leaving Norwood he learned and thoroughly mastered braille music, and all his compositions are first written in braille. No other blind man and few of the great sighted composers have composed larger musical works. The latest - recently finished - is a symphony for full orchestra, every note of which was first written in braille. Modern in character though it be, his music is by no means extreme, and while one can trace in it the influence of Schumann and Brahms, it is natural, melodious, and always the work of a true musician. His taste is catholic, and he greatly admires Sullivan, Edward German, and Percy Grainger of the lighter school.

It may surprise my sighted readers to learn that Guy Fawkes Day was observed at a blind college. We youngsters went to Miss Adams once a week for our dole of pocket money. Ordinarily we were not supposed to require more than fourpence, but for Guy Fawkes Day we were allowed to be somewhat lavish, and the more fortunate would spend a shilling or even eighteenpence on fireworks. Noisy ones, such as squibs and crackers, were the most popular, but Roman candles and catherine wheels were also bought by those who had a little sight, and Mr. Pulley, who was not above joining in the fun, let off rockets. We all gathered round a huge bonfire which all helped to feed. If we could not see the flames we could at least hear the crackle and feel the heat. The fully or partially sighted people lighted the torch for us, and as soon as we were told that our firework was "going" we threw it as far as we could and waited in delightful expectation for the hiss and then the bang of a squib, or the series of pops of a jumping cracker. It often happened that one of our fireworks was a failure; it might not be well enough lit or we might throw it amongst a lot of wet grass. This meant keen disappointment. But on the whole we got on very well. The sighted people made sure that each of us had a clear space in which to throw his firework, and I do not remember an accident or even the slightest burn. When any of us had no more fireworks he would beg of his neighbours. The phrase was: "Oh, I say, do lend me a firework, will you?" It was never "sell" or "give." Prince Alexander was as keen as any of us, and I can hear him now: "Ah, do lend me a firework."

The Annual Prize Festival on 9th July 1879 was another great occasion. The Princess of Wales (afterwards Queen Alexandra) presented

the prizes. Campbell offered three medals of gold, silver, and bronze for the best playing of pianoforte technical studies, and I was fortunate enough to win the bronze medal. The silver medal went to Schwier, but the gold medal was "unattained." Hartvigson and Campbell were the judges.

There was a large marquee in the meadow. The Prince and Princess of Wales were accompanied by their three daughters and by Prince Louis of Battenberg, the Duke of Westminster, the Archbishop of York, and others. The Prince of Wales made a speech. The Princess sat behind a table in the middle of a long platform, and prize winners had to walk from one end of the platform to a prearranged place opposite to Her Royal Highness's chair. The platform was carpeted, and underneath the carpet two narrow strips of wood were nailed like railway lines. These strips served as guides, and a mat under the carpet indicated when we must turn to face the chair. After we had received our prizes we had only to step back a few paces and down a couple of shallow steps to the floor. The Princess, when she had given me my prize, said, "Mind the step." She had very kindly said that we need not trouble to walk backwards, but on being told that the ceremony had been carefully rehearsed, allowed it to proceed as arranged, and the prize winners went through their paces without hesitation.

Some distinguished person has been asked to present the prizes each year since the foundation of the college. In 1880 I think it was Mrs. Craik, the authoress, who presented them. I have also had the honour of receiving prizes at the hands of John Bright, Mrs. Richardson-Gardiner, Phillips Brooks, Princess Frederica of Hanover, and other distinguished people.

* * *

The then Duke of Westminster took a great interest in the college and was Chairman of the Committee (now the Board of Governors). Nearly every year His Grace gave the use of Grosvenor House for a concert by the pupils, and himself presided. I used to hear a good deal about the excellent refreshment prepared for us, and particularly about the iced coffee. The first of the Grosvenor House concerts at which I played was on the 30th of June 1880. I do not remember anything about the concert or what my own solos were, but on looking up a record of it I find that besides the Duke there were present Professor Fawcett, Dr. Hueffer (the music critic of The Times), and the Hon. James Russell Lowell, the poet and writer, who was, I think, American Ambassador at the time. But if I have forgotten the concert I have not forgotten the excellence of the coffee, which went down sweetly.

I owe to one of the Grosvenor House concerts a particularly fragrant memory. The Duchess had recently given birth to a daughter, who was brought down for us to touch and admire.

* * *

On the 24th of June 1882 a Command Performance by the college students was given at Windsor Castle before Queen Victoria. We went to Windsor in all our war paint, I wearing a knickerbocker suit specially

bought for the occasion and arrived at the castle in time for an excellent lunch. (I have forgotten the rest of the menu, but I still remember the dessert, which included the largest and most delicious strawberries I ever tasted.) We were assisted by the Queen's private orchestra, whose members were the finest orchestral players in London.

The following was the programme:

- Madrigal....."All creatures now are merry minded".....John Benet
- Concerto.....Schumann
Piano - Master Alfred Hollins
- Cantata.....Toggenburg.....Rheinberger
- Rondo for two Pianos.....Chopin
Miss Gilbert and Miss Inskip
- Concertstück for Piano and Orchestra.....Weber
Piano - W. F. Schwier
- Motet....."Hear My Prayer".....Mendelssohn
Miss Campbell and Choir
- National Anthem

*Selections therefrom are reprinted here with minor modifications, see page 71.

PART V

NOTES ON HER WORK AS SUPERINTENDENT OF THE CLASSES FOR THE BLIND IN THE BOARD SCHOOLS OF LONDON*

By Mary Caroline Greene

(With introductory notes by Edward E. Allen)

Miss Greene was for eight years a teacher at the Perkins Institution, and from there went, in January 1872, as Dr. Campbell's first and only assistant to the opening of the Royal Normal College for the Blind. She, the first of many American teachers who taught for him afterwards, was chosen by him because he knew her work intimately. In the spring of the same year Mr. Joel West Smith, Miss Howes, and Miss Faulkner, the present Lady Campbell, went also to assist Dr. Campbell. Dr. Howe wrote of them all in his report that he was glad to let these his best teachers go to help on Dr. Campbell's experiment, in which he was so much interested, that of establishing in England an American school for the blind.

After Miss Greene had taught seven years in the Royal Normal College, the London School Board, deciding to establish classes for blind children, asked Dr. Campbell to recommend some one to inaugurate and take charge of the work, and he again chose Miss Greene. She always boarded at the college, partly to have the moral support of Dr. Campbell, partly to keep up her own inspiration, and partly to coordinate her work with that of the college, to be able to choose blind teachers from personal knowledge, and to keep an oversight of her London pupils who had become pupils of the college.

About her blind teachers she wrote: "To make the employment of blind teachers in day schools for blind children a success, there must be an organizer who has faith in blind teachers, one who believes that they can do the work, and under proper conditions that they can do it better than anybody else."

Miss Greene herself fulfilled these conditions. She often tutored her four blind teachers evenings, returning to the college at midnight. Then, too, she constantly visited the seeing teachers who had taken her blind children into their regular classes, keeping up their interest and faith and helping them do the best by their sightless charges.

Miss Green had charge of the blind pupils of the London Board Schools twenty years, and retired at the age of seventy.

The following account by her was found among her papers after her death. One of her chief characteristics was modesty. She could work seeming miracles, but she could not or would not make any display of herself or of her achievements. This paper of hers is all in the third

person. The reader must supply the first person, and that person the quiet, retiring, forceful, devoted Mary C. Greene.

NOTES BY MISS MARY C. GREENE ON HER WORK AS SUPERINTENDENT
OF THE CLASSES FOR BLIND PUPILS IN THE BOARD
SCHOOLS OF LONDON

There is here attempted an account of the employment of blind young women as teachers of blind children, mostly of the poorest class, under the School Board of London during a period of over twenty years. It is offered as a small contribution to a much debated question, and is not meant as a special plea, further than may be justified by the facts.

A few blind children, lonely at home in the absence of their play-mates or sent by way of relief to their parents, were in attendance at several public elementary schools in London prior to the passage of the Education Act of 1870(?). Recognizing this fact, the London School Board had employed a blind man to visit those schools and give such instruction as was practicable in weekly lessons, one or two hours in length, and later a teacher who had lost her sight in the service of the board was appointed to assist him.

In 1879 about thirty children were receiving individual instruction in reading, writing and arithmetic, sometimes in a corner of the hall or classroom, sometimes, by favor, in the teacher's private room. Some of these children came only for their special lesson; others attended constantly, but little real work was done. Kindly teachers would call the blind child to the desk and help him to spell out with his fingers a few sentences in an embossed book, or would depute another child to "hear him read." Scripture passages were learned by heart; words spelled by the whole class in the old thrice-repeated, sing-song method would impress themselves on his memory; so, too, the Multiplication Table and Weights and Measures shouted in concert. But unless gifted with an unusually alert brain, his time was largely spent in fidgeting in his chair at the table, or in sleeping with his head bowed on his arms. During the hours for special instruction he was given lessons in reading by touch, in written arithmetic by means of the board and metal type, which are still in use, and in writing by the braille point system, then just introduced into England.

Gradually improvement was wrought, more teachers were engaged, better qualified in mind and heart for their work. A more thorough canvass was made for blind children; all were visited, and earnest efforts were made to induce the parents to send them to the nearest school to receive instruction from the blind teacher at more frequent intervals. Various difficulties were met and to a large extent overcome. Help was given where needed to take the child to and from school. Teachers were interviewed and persuaded to put the blind child on the school register, instead of regarding him as only a visitor; to seat him among the other children, instead of apart and alone; and to lead him by remark or direct question to feel that he had a share in the instruction and was expected to give his attention.

With the passage of the Education Act** of 1893 a new era began. School Board officers and parents found that compulsion must be applied to blind as to normal children. Payment of fares was definitely authorized, and also of guides, if real hardship to the parents were the alternative, so that children could come by public conveyances from considerable distances.

Thus small classes were grouped into larger centers, selected for convenience of access, and the blind teacher, no longer peripatetic, could classify her children and systematize her work. The time of the children was divided between the Center and the ordinary school. The younger children and beginners received the entire attention of the blind teacher during the morning, the others being sent into those classes in the boys' and girls' schools for which their progress fitted them. In the afternoon the younger children went into the Infants' Department, and joined in all lessons that could interest or profit them, while the blind teacher prepared the older ones for next morning's work in school, explained points that had not been understood, or took up matters that on account of their deprivation were not a part of daily observation, as with their playmates.

Whenever a blind child was heard of he was sought out. If the message to the mother to come with him and visit availed, her good will would soon be gained by the kindly sympathy of a teacher who was "afflicted" like her own child, and who was "so good to those poor little things," while the little one having spent an hour or two under such happy conditions was eager to come again, and it was only needful to arrange the details for future attendance. Where the parent could not or would not come to the school, the teacher would go to the home, learn the real circumstances, and seldom failed to accomplish the end, though sometimes compulsion became necessary.

Many children from a distance brought their dinners or obtained them at the school. The care of these during the noon-time became too great a tax upon the blind teacher, and a young girl at each Center was engaged as her helper, to do whatever was needful under her direction, and also to assist during school hours by distributing and putting away books, apparatus and work, sometimes being trusted to guide helpless little fingers in setting rows of arithmetical type, or in the first attempts to hold a braille dotter.

In the earlier of these years the specific training of the blind girls to be teachers of their own class had not begun. As time went on it advanced along the same lines as that of candidates and students in training colleges for the sighted, and is now fully abreast of it. But though starting with fewer advantages of training, the teachers employed by the board possessed, and further developed by experience, good sense, clear judgment, and above all intense devotion to their work and an individual love for their children which made them glad to spend and to be spent for them, whether in or out of school hours.

Self-reliance and self-helpfulness were developed among the children as far as possible. They were sent on errands to other departments of the school, and mothers were encouraged to make them actively useful at home. Nor was the blind teacher hampered by the fear that she would be deemed hard

and exacting towards them, for to quote the common expression, "She knows what they can do all right, and she is afflicted, too." Constantly was held before them the goal of being able to earn honorably their own living, and in blind teacher they had a quickening example. They perceived her associating with the sighted teachers as one of them. She was to them as important a person as "governess" was in the big school, for she planned their work, compelled respect and obedience, arranged for their pleasant entertainments from time to time, and even found for them nice places in the country for summer holidays. That they might grow up to be teachers like her was the often expressed hope of the brighter children, and very helpful they tried to be towards those younger and less advanced than themselves.

Another incentive operated powerfully on the children and their friends. The Royal Normal College at Norwood was known as the place where blind children were taught to do wonderful things when they grew up. Within their own knowledge children no more clever than these were getting on finely there, or were already out at work, tuning pianos or teaching music; yes, and even their own dear teachers learned there almost all they knew, and a few had been there at exhibitions and knew all about it. But it took a great deal of money to go there, though it was not quite hopeless, for very industrious and clever children might get a scholarship. That meant that they could go in for much less money, and then perhaps their parents could pay the rest. Herein was a great stimulus.

To sum up the whole matter: it is a fact that at the beginning of 1901 there were twelve blind young women in charge of the instruction of over two hundred blind children in London, working under identically the same conditions that obtained among the sighted teachers of elementary schools. Their salaries, their position among other teachers, their quality of work as indicated by results and reports of inspectors, their influence over their pupils and the parents of their pupils, in all these particulars they were on an equality with sighted teachers under the board.

Mary C. Greene, July 21, 1902

* Originally published in the Outlook for the Blind, Vol. III, No. 3 (1909), see page 109.

** The Elementary Education Act (Blind and Deaf Children), see page 80.

U.S. GOVERNMENT SPONSORED RESEARCH TO STUDY BLINDNESS 1973 SUPPLEMENT

PROGRAMS FOR THE VISUALLY HANDICAPPED

ADMINISTERED OR MONITORED

BY THE

BUREAU OF EDUCATION FOR THE HANDICAPPED
U.S. OFFICE OF EDUCATION

By Josephine Taylor*
Educational Program Officer
Bureau of Education
for the Handicapped

* Assisted by Robert Dantona, Max Mueller, and Margret Hannegan.

DIVISION OF INNOVATION AND DEVELOPMENT

The mission of the Division of Innovation and Development is to assist in the improvement of educational opportunities for handicapped children, including those with visual handicaps, through the support of applied research and related activities. Historically, the research support program of the Bureau of Education for the Handicapped has been based largely on reactions to unsolicited proposals submitted by the special education community. This posture has resulted in support of projects which have contributed significantly to the knowledge base about handicapped children and has increased the availability of educational resources for such children. Many of the activities supported have related directly to the improvement of educational opportunities for the visually handicapped. Through the ten year history of this program from 10-15% of the activities supported have been in the area of visual impairment. Among the more significant results of these efforts are the Optacon, a system for training children with very low vision, better knowledge of the use of compressed speech, and numerous instructional materials especially designed for the visually handicapped.

At present the Division is attempting to achieve a more systematic targeting of research resources by three general strategies. First, it was decided that more resources will be devoted directly to the identification of critical information and resource needs in special education. Second the major preportion of the research effort will be focused specifically on objectives established by the Bureau. Finally, an increasing proportion of the total research effort is to result from formal solicitation of projects addressing specific problems.

The most immediate need perceived by Division staff is to obtain the most comprehensive input possible from our many constituencies. A number of procedures will be tried out initially to assure that planned activities are consistent with the best thinking in the field.

The immediate tasks to be accomplished are:

1. To develop a systematic organizational schema for addressing each of the Bureau objectives,
2. To identify and prioritize significant content (issues, problems, needs, etc.) associated with each objective,
3. To identify research strategies related to those areas where research approaches are important,
4. To organize this information into a long range research plan which also incorporates specific, short term objectives.

Through this process specific attention will be given to assuring that the needs of all handicapped populations will be considered. We are confident that our research program will continue to support activities resulting in significant gains in assuring equal educational opportunities for the visually handicapped.

U.S. OFFICE OF EDUCATION RESEARCH PROGRAMS
FOR THE VISUALLY HANDICAPPED

PROJECT NUMBER	INVESTIGATOR/ GRANTEE/LOCATION	TITLE	DURATION
23-3197 G-0-72-5464 \$66,210.00	Beth Stephens Temple University Philadelphia, Pennsylvania	The Reasoning, Moral Judgment and Moral Conduct of the Congenitally Blind	6/30/72 3/31/74
23-3109 C-0-7-72-5180 \$91,472.00	R. A. Weisgerber American Institutes for Research Palo Alto, California	Educational Evaluation of the Optacon (Optical-to-Tactile Converter)	6/30/72 9/29/74
23-3492 G-0-73-0642 \$74,932.00	Carson Nolan American Prtg. House for Blind Louisville, Kentucky	Program for Facilitating the Education of the Visually Handicapped through Research in Communications	11/15/72 11/14/73
23-3475 G-0-73-7064 \$22,918.00	George Lackey University of South Carolina Columbia, South Carolina	Comparison of the Large Print Textbook and the Visolett in the Education of Visually Handicapped Children	6/30/73 6/29/74
23-2528 G-0-72-5460 \$175,136.00	W. Scott Curtis University of Georgia Athens, Georgia	A Study of Behavioral Change in 50 Severely Multi-Sensorily Handicapped Children Through Application of the Video-Tape Recorded Behavioral Evaluation Protocol	6/1/72 7/31/75
18-2013 G-0-72-5454 \$288,953.00	Julian Stein American Association for Health, P.E. & Recreation Washington, D.C.	Information and Research Utilization Center in Physical Education and Recreation for the Handicapped	6/30/72 6/29/75
23-3496 G-0-73-5171 \$196,491.00	Doris Berryman New York University New York, New York	System Utilization for Comprehensive Modular Planning of Therapeutic Recreation Services for Disabled Children and Youth	6/1/73 5/30/74
33-4260 23-P-57488 \$40,000.00	Haig Kafafian Cybernetics Research Institute Washington, D.C.	Man-Machine System for the Handicapped	5/1/73 11/30/73
OEG-0-8-080144- 4280 \$149,000.00	Arnold P. Grunwald Argonne National Laboratory Argonne, Illinois	Compact Storage System of Information on Magnetic Tape Readable by Touch as Braille Characters by Means of Portable Reading Machine.	6/6/68 to present

DIVISION OF PERSONNEL PREPARATION

Professional Preparation Programs:

Provision of an adequate educational program for all visually handicapped children and youth requires availability of a sufficient number of well prepared personnel to serve in the variety of roles dictated by the needs of the individual children, and the educational service delivery systems provided for them. Due to the relatively low prevalence of visually handicapped children, it is not feasible for each state to maintain a preparation program in this area of handicapping conditions. The Bureau of Education for the Handicapped's funding to colleges and universities for this purpose has therefore been planned, where possible, to consider the larger geographical needs, and the desirability of assisting universities in key locations in developing strong, diversified programs. Depending upon the geographical needs, some universities provide separate and distinct preparation of teachers of visually handicapped children, teachers of deaf-blind and other multihandicapped children, mobility instructors, supervisors, administrators and research personnel. Others prepare teachers of the visually handicapped, some of whom may specialize in the education of the deaf-blind or other multihandicapped. Others through an extended training period offer the opportunity for dual competencies in education of the visually handicapped and orientation-mobility specialization, designed especially to serve children and youth in non-urban areas. Since more children with additional handicaps are being provided with education and/or training more attention is being given to the unique needs of the multihandicapped. In most preparation programs more emphasis is also being placed upon the teaching of skills of daily living and better utilization of residual vision.

Among the over 300 colleges and universities funded by the Bureau of Education for the Handicapped during the academic year ending in June 1973, there were 24 that graduated personnel in the education of the visually handicapped. Levels of preparation were as follows: Doctorate 4, Educational Specialist 3, Master's degree 202, Bachelor's 185, certification 12 - total 406. Orientation and mobility specialists are included in this number. However, a separate count is given for those who completed a program as teachers of the deaf-blind of whom there were: 1 Doctorate, 1 Educational Specialist, 36 Master's, and 8 Bachelors, and 12 students working for certification only. There were also 16 Master's level and 1 post-master's who completed a program in education of the severely multihandicapped not specifically for the deaf-blind, and 19 Master's level graduates of programs for the severely multihandicapped child of preschool age.

Over 90% of the above 500 graduates accepted positions in the specialty in which they were prepared. Most of those who did not were Bachelor's level graduates who accepted positions in regular classes in communities serving handicapped children.

In addition to the above, graduates of programs preparing personnel to work with children with other handicapping conditions (i.e. the deaf, speech and hearing or other educationally handicapped) were employed in programs for the visually handicapped or deaf-blind.

Since all of the above represent only about 3% of the number of personnel needed to serve all visually handicapped children adequately, it is fortunate that the number of trainees in this area increased substantially in the 1973-74 academic year.

Regular program assistance grants to institutions of higher learning such as those described above are the principle funding activity of the Division of Personnel Preparation of the Bureau of Education for the Handicapped. Grants for this purpose are also made to State education agencies to allow for the special needs indicated through each state's overview of its plan for special education. Most of these funds are used for inservice training either through summer sessions or special study institutes.

As it becomes evident that certain personnel needs are not being met through the usual personnel preparation programs, efforts are made to encourage expansion into these areas. In 1973 these were indicated to be program priorities:

Preparation of personnel to serve the severely and multi-handicapped;

Preparation of personnel to serve handicapped children where large needs still exist, e.g., seriously emotionally disturbed;

Selection of trainees from general education personnel surplus. This will require efforts at the master's or fifth year level, rather than a single emphasis upon undergraduate preparation;

Recruitment of personnel from minority groups;

Preparation of personnel to function with preschool handicapped children and infants;

Programs which prepare personnel for national and regional needs, e.g., low incidence areas such as the visually handicapped;

Programs which stress the preparation of personnel to function in career or vocational education programs;

Adherence to the evaluation and other informational requirements as described in the proposed rules and regulations, the application, and the descriptive elements of personnel preparation programs;

Continuation, but not expansion, of doctoral level preparation programs, particularly in the areas of greatest need;

Cooperative planning efforts between State education agencies, and institutions of higher education.

With an increasing number of states being mandated either through legislation or litigation to serve more handicapped children in the "mainstream" of education, encouragement was given to supporting regular classroom teachers preparation for their role in the education of the handicapped. Also, with an increased nationwide effort to provide training for the very severely handicapped and a recognition that the shortage of professionally-trained personnel may be alleviated through the assistance of paraprofessionals for certain aspects of school programs, community and junior colleges have been encouraged to participate in special education training. These have been funded as special projects.

Unlike the program assistance grants which are funded on approved plans submitted on a department-wide basis, special projects are funded as separate, discrete proposals with the purpose of designing, implementing and evaluating improved preparation strategies, or to prepare persons for new types of delivery systems and to offer more flexibility in responding to critical personnel needs.

Special projects are usually funded for a maximum of three years with the expectation that at the end of that period the evaluation of the new system will indicate that it should be adopted as part of the regular training programs of the university. In 1973, six special projects pertaining to the visually handicapped were in the implementation and evaluation stages of development. These included:

(1) A program for the development and improvement of educational facilities for visually handicapped children in Puerto Rico through a university teacher training program adapted to the cultural and language differences of the children, their extended families and teachers. A similar program was developed for the Virgin Islands.

(2) Preparation of teachers to serve as resource or itinerant specialists and as orientation and mobility instructors to children in the Rocky Mountain region.

(3) A project to recruit and prepare persons from three southern states where there has been a severe shortage of trained teachers of visually handicapped children.

(4) A two-year training program to provide educators of deaf-blind children with consideration for national needs through intern placements with the Regional Centers for Deaf-blind children.

(5) Preparation of personnel to teach children who have visual handicaps and/or specific learning disabilities.

(6) A national institute for the development of adequate leisure education and recreation experiences for the deaf-blind child and the introduction to the deaf-blind of the therapeutic recreation specialist.

Information obtained through a survey of local public schools in the spring of 1970¹ indicated that there were 47,000 visually handicapped children enrolled therein who were not receiving special educational services. This survey did not include private schools, State operated schools, and schools operated by intermediate school districts. It also did not attempt to indicate the number not attending any school. Nor did it indicate the number of preschool children lacking early childhood education programs. If added to this is the number of children in the various school programs who are being served by persons who have inadequate or no training as teachers of the visually handicapped, it is obvious that the problem is acute both in the need for expansion of personnel preparation programs on the preservice and inservice levels, and the development of more educational delivery systems.

¹Number of Pupils With Handicaps in Local Public Schools, Spring 1970,
DHEW Publication No. (OE) 73-11107.

DIVISION OF EDUCATIONAL SERVICES

Authorizing Legislation: Part B, Education for the Handicapped Act
(P.L. 91-230) - State Plan Program

Purpose: Initiate, expand, and improve educational and related services to handicapped preschool, elementary, and secondary children.

Estimated Number of
Visually Handicapped Children 7,391
FY '73

Authorizing Legislation: P.L. 89-313 - Program for Education of
Handicapped Children in State Operated or
Supported Schools

Purpose: Strengthen educational programs for handicapped children in
State operated or State supported schools.

Estimated Number of
Visually Handicapped Children 8,785
FY '73

Authorizing Legislation: Title III, Elementary and Secondary Education
Act - Innovation in Special Education

Purpose: Grants for innovative and exemplary programs and projects which
are designed to demonstrate ways of making a substantial con-
tribution to the solution of critical problems in the field of
(special) education.

Estimated Number of
Visually Handicapped Children 1,946
FY '73

Authorizing Legislation: P.L. 90-576, Voc Ed Amendments, 1968, Voca-
tional/Career Education for the Handicapped

Purpose: Provide vocational and career educational services to handi-
capped children and youth.

Estimated Number of
Visually Handicapped Children 4,726
FY '73

Authorizing Legislation: Part C, Education for the Handicapped Act
Handicapped Children's Early Education Program
(P.L. 91-230)

Purpose: Develop model preschool and early education programs for
handicapped children

Approximately 60 of the projects served all types of preschool
children, 16 others served multi-handicapped. Six that specified visually
handicapped were:

Idaho State School for the Deaf and Blind
A Model Project for Early Identification and Education of
Visually Handicapped Children in a Rural State

Board of Education, Chicago, Illinois
Parent and Infant Education for Vision and Hearing Handicapped
(Hard of Hearing, Deaf, Visually Handicapped)

Boston Center for Blind Children
Boston, Massachusetts 02130
(Visually Impaired, Mentally Retarded)

Ingham Intermediate School District
Mason, Michigan
(Visually Impaired, Multi-Handicapped)

University of Illinois
Champaign, Illinois 61801
(Visually Impaired, Hearing Impaired, Speech Impaired,
Crippled, Emotionally Disturbed)

Minnesota Department of Education
St. Paul, Minnesota 55101
Early Childhood Education Program: Low Incidence Handicaps
(0-4 yrs.)
(Hearing Impaired, Visually Impaired)

Authorizing Legislation: Part F. Education for the Handicapped Act,
(P.L. 91-230), Media Services

Purpose: To establish a special educational instructional materials
center for the purpose of development and dissemination of
materials to serve the educational needs of the blind and
visually handicapped.

Department of Public Instruction, Springfield, Illinois;
-An Educational Materials Center for Handicapped Children.

American Printing House for the Blind, Louisville, Kentucky;
-Instructional Materials Reference Center for the Visually
Handicapped.

Michigan State University, East Lansing, Michigan;
-An Instructional Materials Center for Children with Visual
Handicaps.

CENTERS AND SERVICES FOR DEAF-BLIND CHILDREN

Authorizing Legislation: Part C, Education for the Handicapped Act
(P.L. 91-230) - Deaf Blind Centers

The eleven Regional Centers for Deaf-Blind Children, each headed by a regional coordinator and providing services for deaf-blind children in all 50 States and Trust Territories, were established under the provisions of P.L. 91-230, the Education of the Handicapped Act. Their services are offered to children who have both auditory and visual impairments, the combination of which causes such severe communication and other developmental and educational problems that they cannot properly be accommodated in special education programs either for the hearing handicapped child or for the visually handicapped child. These centers are responsible for seeking out those deaf-blind children who are not receiving services, for developing consultation and training programs to help both parents and teachers understand and work with these children, and for promoting the development of new programs and services for deaf-blind children.

The Centers coordinate the activities of participating agencies to provide the following comprehensive services: diagnosis and evaluation; education, adjustment, and orientation programs; inservice training and consultation for parents, teachers, and others directly involved with the lives of these children. Additional activities include: research, development or demonstration of new improved techniques with deaf-blind children, and inservice training of professional and allied personnel.

To date, 5,064 deaf-blind children have been located throughout the United States. Some 1,903 of these children are enrolled in full-time day or residential educational programs. An additional 784 children are benefiting from part-time educational programs in day or residential school facilities. Approximately 700 new children will receive diagnostic and evaluation services during this school year.

Some 3,000 parents (or parent surrogates) will benefit from parent counseling services provided by the nearly 200 educational programs funded by the Centers. And, 2,000 teachers, aides, and parents will benefit from workshops, institutes and other inservice training activities coordinated by the Centers.

Additional program information may be obtained by writing to the Center serving your State.

Centers and Services for Deaf-Blind Children:

Robert Dantona, Coordinator
Centers and Services for Deaf-Blind Children
Bureau of Education for the Handicapped
U.S. Office of Education
Department of Health, Education and Welfare
Washington, D.C. 20202
(202) 245-9722

John Crosby, Coordinator
Regional Center for Services to Deaf-
Blind Children
c/o Alabama Institute for Deaf and Blind
Box 268
Talladega, Alabama 35160
(205) 362-8460

Alabama, Florida
Georgia, Kentucky,
Mississippi,
Tennessee

Dr. William Blea, Coordinator
Regional Centers for Services to Deaf-
Blind Children
c/o State Department of Education
1500 -5th Street, Room #204
Sacramento, California 95814
(916) 445-8071

Arizona, California,
Hawaii, Nevada,
Guam, Territories

Dr. John Ogden, Coordinator
Regional Center for Services to Deaf-
Blind Children
c/o Colorado Department of Education
1346 Lincoln Street
Denver, Colorado 80203
(303) 892-3382

Colorado, Kansas,
Nebraska, New Mexico,
Utah, Wyoming

John Sinclair, Coordinator
New England Center for Services to Deaf-
Blind Children
c/o Perkins School for the Blind
175 North Beacon Street
Watertown, Massachusetts 02172

Connecticut, Maine,
Massachusetts,
New Hampshire,
Rhode Island,
Vermont

George Monk, Coordinator
Regional Center for Services to Deaf-
Blind Children
c/o Michigan State School for the Blind
715 Willow Street
Lansing, Michigan 48906
(517) 373-3730

Illinois, Indiana,
Michigan, Ohio,
Wisconsin

William Keenan, Coordinator
Regional Center for Services to Deaf-
Blind Children
c/o Minnesota Department of Public Welfare
Centennial Building
St. Paul, Minnesota 55101
(612) 296-3472

Iowa, Minnesota,
Missouri,
North Dakota,
South Dakota

Khogendra Das, Coordinator
Regional Center for Services to Deaf-
Blind Children
c/o N.Y. Institute for the Education
of the Blind
999 Pelham Parkway
Bronx, New York 10469
(212) 547-1234

Delaware, New Jersey
New York, Pennsylvania,
Puerto Rico,
Virgin Islands

Hank Baud, Coordinator
Regional Center for Services to Deaf-
Blind Children
c/o N.C. Department of Public Instruction
400 Oberlin Road
Raleigh, North Carolina 27605
(919) 829-3813

District of Columbia,
Maryland, Virginia,
North Carolina,
South Carolina,
West Virginia

Jack English, Coordinator
Regional Center for Services to Deaf-
Blind Children
c/o Callier Hearing and Speech Center
1966 Inwood Road
Dallas, Texas 75235
(214) 638-1100

Arkansas,
Louisiana,
Oklahoma,
Texas

Scott Irvin, Coordinator
Texas State Deaf-Blind Center
Texas Education Agency
201 East Eleventh Street
Austin, Texas 78701
(512) 475-3501

Texas State
Deaf-Blind Center

Jack Sweetser, Coordinator
Northwest Regional Center for Deaf-
Blind Children
3411 South Alaska Street
Seattle, Washington
(206) 464-6694

Alaska, Idaho,
Montana, Oregon,
Washington

OTHER
U.S. OFFICE OF EDUCATION
SERVICES
FOR THE
VISUALLY HANDICAPPED

Library Services to the Physically Handicapped
(blind and visually handicapped)

Authorizing Legislation: Library Services and Construction Act,
 Title I.

Purpose: To extend and improve public library services, institutional library services, and library services to physically handicapped persons through public or other nonprofit libraries, agencies, or organizations, to physically handicapped persons (including the blind and other visually handicapped) certified by competent authority as unable to read or to use conventional printed materials as a result of physical limitations.

The percentage of blind and visually handicapped readers receiving library service under the Library Services and Construction Act is high. The median as reported in 1972 was 75% of the physically handicapped persons served, with a high of 92% reported in one State. Approximately \$3,835,000 (Federal, State and local funds) were expended for Library Services and Construction Act programs providing materials, staff, and services including educational and public information programs aimed at acquainting eligible persons with the services available. In addition, library services in State schools for the blind have been greatly improved, and many visually handicapped are among those being reached in public library out-reach and visiting librarian programs serving shut-ins and others unable to come to the library.

Examples of library services for the visually handicapped:

In Manatee County, Florida, the Palmetto Public Library provides talking book service to the handicapped (85% of those served are reported to be blind) in the county. A popular and rewarding part of the program is a monthly discussion group to which free transportation is provided by the Lions Club and the library staff. To many who attend, this is one of the few times they get out of their homes. Some programs consist of book review and discussion by the members, others of a talk on a subject of interest to the group by an outside speaker.

The Long Beach (California) Public Library, under a Library Services and Construction Act grant, developed library service for the estimated 6500 visually handicapped persons in its area. Students from local colleges, elementary and secondary schools as well as senior citizens make up the majority of the users of the service. Funds were spent for large print books and periodicals, recordings, and equipment such as tape recorders, record players and tape to supplement Talking Books and braille materials from the State Regional Library for the Blind and Physically Handicapped.

In a growing number of States, summer reading programs for children now include those with visual handicaps. Announcements, book lists and

certificates are printed in large type and braille, and the children read books recorded on discs or cassette tapes, or printed in braille or large type, but they attend story hours and other programs with sighted children.

Special programs are also given for visually handicapped children attending summer camps and for those in institutions. For instance, in Tennessee, the staff of the State Regional Library for the Blind and Physically Handicapped conducts a weekly Library Hour at the summer Day Camp for Visually Limited Children, and the library sponsors a weekly story hour at the Tennessee School for the Blind.

In many States, Library Services and Construction Act funds provide equipment and materials for volunteer taping and large print and braille typing programs of materials not available from the Library of Congress. In Tennessee, seventeen of the one hundred-some volunteers are inmates of the Men's Penitentiary who have formed a club called PIRATES - Prison Inmates Recording and Transcribing Educational Materials for the Sightless.

North Carolina, Georgia and Arizona are among the States which have established museums or collections of art objects and tactile materials in the State Regional Library for the Blind and Physically Handicapped which may be borrowed by libraries, schools, institutions and individual handicapped persons.

Appreciation of the library services received by blind and other handicapped people is increasingly being expressed by means of cash gifts and bequests to the State Regional Libraries. For instance, in 1973 the Nebraska Library Commission received a bequest of \$7,621.54 for "the benefit of blind persons." Given in gratitude for more than ten years of Talking Book service given her husband after he became blind, this represented one-fourth of the estate of the woman who made the bequest.

NEW NATIONAL EYE INSTITUTE RESEARCH GRANTS

AWARDED DURING FISCAL YEAR 1973

Project Director : Apple, David J.
 Grantee Agency : University of Illinois at the Medical Center
 Chicago, Illinois
 Title of Project : Experimental Argon Laser Photocoagulation
 Interest Category: Retinal and Choroidal Diseases
 Grant Number : EY01078
 Cost : \$31,027

Project Director : Baker, Robert G.
 Grantee Agency : University of Iowa, Iowa City, Iowa
 Title of Project : Eye Movement: Physiological Organization
 Interest Category: Sensory-Motor Disorders and Rehabilitation
 Grant Number : EY01074
 Cost : \$36,943

Project Director : Bernard, Gary D.
 Grantee Agency : Yale University, New Haven, Connecticut
 Title of Project : Optical Information Processing in Eyes
 Interest Category: Sensory-Motor Disorders and Rehabilitation
 Grant Number : EY01140
 Cost : \$37,899

Project Director : Berrocal, Jose A.
 Grantee Agency : University of Puerto Rico, San Juan, Puerto Rico
 Title of Project : Collaborative Study of Diabetic Retinopathy
 Interest Category: Retinal and Choroidal Diseases
 Grant Number : EY01034
 Cost : \$44,000

Project Director : Bigger, John F., Jr.
 Grantee Agency : Washington University, St. Louis, Missouri
 Title of Project : Studies in Glaucoma and Related Diseases
 Interest Category: Glaucoma
 Grant Number : EY01167
 Cost : \$18,930

Project Director : Borkman, Raymond F.
 Grantee Agency : Georgia Institute of Technology, Atlanta, Georgia
 Title of Project : Spectroscopic Characterization of Human Lenses
 Interest Category: Cataract
 Grant Number : EY01138
 Cost : \$23,734

Project Director :	Burns, Robert P.
Grantee Agency :	University of Oregon Medical School, Portland, Oregon
Title of Project :	Biochemical Cytology of Metabolic Eye Diseases
Interest Category:	Corneal Diseases
Grant Number :	EY00753
Cost :	\$44,676
Project Director :	Cohan, Bruce E.
Grantee Agency :	University of Michigan, Ann Arbor, Michigan
Title of Project :	Human Optic Disc Laser Contour Angiograms in Glaucoma
Interest Category:	Glaucoma
Grant Number :	EY01076
Cost :	\$67,247
Project Director :	Cross, Harold E.
Grantee Agency :	Johns Hopkins University, School of Medicine Baltimore, Maryland
Title of Project :	Clinicogenetic Studies of Best's Macular Dystrophy
Interest Category:	Retinal and Choroidal Diseases
Grant Number :	EY00976
Cost :	\$32,360
Project Director :	Davis, Starkey D.
Grantee Agency :	University of Washington, Seattle, Washington
Title of Project :	Chemotherapy of Experimental Pseudomonas Keratitis
Interest Category:	Corneal Diseases
Grant Number :	EY01010
Cost :	\$9,625
Project Director :	Dubin, Mark W.
Grantee Agency :	University of Colorado, Boulder, Colorado
Title of Project :	Receptive Field Organization in the Visual System
Interest Category:	Retinal and Choroidal Diseases
Grant Number :	EY00998
Cost :	\$35,630
Project Director :	Edelhauser, Henry F.
Grantee Agency :	Medical College of Wisconsin, Milwaukee, Wisconsin
Title of Project :	Pathogenesis of Corneal Edema After Cataract Surgery
Interest Category:	Corneal Diseases
Grant Number :	EY00933
Cost :	\$27,355
Project Director :	Epstein, Ludwig
Grantee Agency :	Virginia Commonwealth University, Richmond, Virginia
Title of Project :	Measurement of Coma in the Periphery of the Eye
Interest Category:	Sensory-Motor Disorders and Rehabilitation
Grant Number :	EY01137
Cost :	\$13,642

Project Director : Farrell, Richard A.
Grantee Agency : Johns Hopkins University, Baltimore, Maryland
Title of Project : Light Scattering and Ultrastructural Studies
of the Cornea
Interest Category: Corneal Diseases
Grant Number : EY01019
Cost : \$38,739

Project Director : Fischbarg, Jorge
Grantee Agency : Columbia University, New York, New York
Title of Project : Bioelectrical Properties of Corneal Endothelium
Interest Category: Corneal Diseases
Grant Number : EY01080
Cost : \$15,165

Project Director : Frayer, William C.
Grantee Agency : Presbyterian - University of Pennsylvania Medical
Center, Philadelphia, Pennsylvania
Title of Project : Collaborative Study of Diabetic Retinopathy
Interest Category: Retinal and Choroidal Diseases
Grant Number : EY01041
Cost : \$32,266

Project Director : Freeman, John A.
Grantee Agency : Vanderbilt University, School of Medicine
Nashville, Tennessee
Title of Project : Optic Tectum: A Combined Structural and
Functional Study
Interest Category: Sensory-Motor Disorders and Rehabilitation
Grant Number : EY01117
Cost : \$15,312

Project Director : Freeman, Ralph D.
Grantee Agency : University of California, Berkeley, California
Title of Project : Partial Visual Deprivation in Humans
Interest Category: Sensory-Motor Disorders and Rehabilitation
Grant Number : EY01175
Cost : \$18,295

Project Director : Fricker, Stephen J.
Grantee Agency : Massachusetts and Ear Infirmary, Boston,
Massachusetts
Title of Project : Correlation Analysis of Eyemotion, ERG and VER
Interest Category: Sensory-Motor Disorders and Rehabilitation
Grant Number : EY00885
Cost : \$52,578

Project Director : Gasset, Antonio R.
Grantee Agency : University of Florida, Gainesville, Florida
Title of Project : Experimental Teratogenic and Toxic Effects of
Ophthalmic Drugs
Interest Category: Corneal Diseases
Grant Number : EY01098
Cost : \$22,361

Project Director :	Gasset, Antonio R.
Grantee Agency :	University of Florida, Gainesville, Florida
Title of Project :	Thermokeratoplasty
Interest Category:	Corneal Diseases
Grant Number :	EY01112
Cost :	\$8,533
Project Director :	Guillery, Rainer W.
Grantee Agency :	University of Wisconsin, System Medical School Madison, Wisconsin
Title of Project :	Abnormalities in Visual Pathways
Interest Category:	Sensory-Motor Disorders and Rehabilitation
Grant Number :	EY00962
Cost :	\$13,967
Project Director :	Held, Richard M.
Grantee Agency :	Massachusetts Institute of Technology, Cambridge, Massachusetts
Title of Project :	Vision and Visuomotor Mechanisms
Interest Category:	Sensory-Motor Disorders and Rehabilitation
Grant Number :	EY01191
Cost :	\$59,725
Project Director :	Hershberger, Wayne A.
Grantee Agency :	Northern Illinois University, Dekalb, Illinois
Title of Project :	Motion Parallax in Simulated Retinal Projects
Interest Category:	Sensory-Motor Disorders and Rehabilitation
Grant Number :	EY00979
Cost :	\$21,757
Project Director :	Hibbard, Emerson
Grantee Agency :	Pennsylvania State University, University Park, Pennsylvania
Title of Project :	Visual Restoration
Interest Category:	Sensory-Motor Disorders and Rehabilitation
Grant Number :	EY01071
Cost :	\$20,169
Project Director :	Hirsh, Helmut B.
Grantee Agency :	Research Foundation of SUNY, Albany, New York
Title of Project :	Development and Functions of the Visual Cortex
Interest Category:	Sensory-Motor Disorders and Rehabilitation
Grant Number :	EY01268
Cost :	\$41,727
Project Director :	Hovanesian, Joseph D.
Grantee Agency :	Oakland University, Rochester, Michigan
Title of Project :	Use of Moire Technique to Measure Corneal Topography
Interest Category:	Corneal Diseases
Grant Number :	EY00993
Cost :	\$30,617

Project Director : Jampolsky, Arthur
Grantee Agency : Smith-Kettlewell Institute, San Francisco, California
Title of Project : The Visual Sciences Research Center Grant
Interest Category: Sensory-Motor Disorders and Rehabilitation
Grant Number : EY01186
Cost : \$75,039

Project Director : Kaiserman-Abramof, Ita R.
Grantee Agency : Case Western Reserve University, Cleveland, Ohio
Title of Project : Structure and Development of the Visual System
Interest Category: Retinal and Choroidal Diseases
Grant Number : EY01018
Cost : \$40,920

Project Director : Kalil, Ronald E.
Grantee Agency : Massachusetts Institute of Technology, Cambridge,
Massachusetts
Title of Project : Developmental Studies of the Visual System
Interest Category: Retinal and Choroidal Diseases
Grant Number : EY01115
Cost : \$11,885

Project Director : Kelly, Donald H.
Grantee Agency : Stanford Research Institute, Menlo Park, California
Title of Project : Retinal Vs. Cortical Adaptation
Interest Category: Sensory-Motor Disorders and Rehabilitation
Grant Number : EY01128
Cost : \$50,355

Project Director : Kerr, Larry G.
Grantee Agency : Pennsylvania State University, University Park,
Pennsylvania
Title of Project : Chromatic Contrast and Stimulus Brightness
Interest Category: Sensory-Motor Disorders and Rehabilitation
Grant Number : EY01110
Cost : \$4,912

Project Director : Kertesz, Andrew E.
Grantee Agency : Northwestern University, Evanston, Illinois
Title of Project : Functional Aspects of Panum's Fusional Areas
Interest Category: Sensory-Motor Disorders and Rehabilitation
Grant Number : EY01055
Cost : \$21,582

Project Director : Kliger, David S.
Grantee Agency : University of California, Santa Cruz, California
Title of Project : Investigation of the Bleaching Stages of Rhodopsin
Interest Category: Retinal and Choroidal Diseases
Grant Number : EY00983
Cost : \$42,368

Project Director :	Kreger, Arnold S.
Grantee Agency :	Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, North Carolina
Title of Project :	Pathogenesis of Pseudomonas Corneal Infection
Interest Category:	Corneal Diseases
Grant Number :	EY01104
Cost :	\$32,555
Project Director :	Larimer, James O.
Grantee Agency :	Temple University, Philadelphia, Pennsylvania
Title of Project :	Magnitude Estimation of the Opponent Process Color Codes
Interest Category:	Sensory-Motor Disorders and Rehabilitation
Grant Number :	EY01172
Cost :	\$5,000
Project Director :	Lemp, Michael A.
Grantee Agency :	Georgetown University, Washington, D.C.
Title of Project :	Studies on the Breakup of the Tear Film
Interest Category:	Corneal Diseases
Grant Number :	EY00988
Cost :	\$18,555
Project Director :	Lettvin, Jerome Y.
Grantee Agency :	Massachusetts Institute of Technology, Cambridge, Massachusetts
Title of Project :	Studies in the Physiology and Psychology of Vision
Interest Category:	Sensory-Motor Disorders and Rehabilitation
Grant Number :	EY01149
Cost . . . :	\$50,974
Project Director :	Liu, Robert S.
Grantee Agency :	University of Hawaii, Honolulu, Hawaii
Title of Project :	New Geometric Isomers of Vitamin A and Carotene
Interest Category:	Retinal and Choroidal Diseases
Grant Number :	EY00918
Cost :	\$16,271
Project Director :	Long, Ruth S.
Grantee Agency :	New York Medical College, New York, New York
Title of Project :	Collaborative Study of Diabetic Retinopathy
Interest Category:	Retinal and Choroidal Diseases
Grant Number :	EY01046
Cost :	\$44,000
Project Director :	Lund, Jennifer S.
Grantee Agency :	University of Washington, Seattle, Washington
Title of Project :	Structure and Development of Visual Cortex
Interest Category:	Sensory-Motor Disorders and Rehabilitation
Grant Number :	EY01086
Cost :	\$35,164

Project Director : Makous, Walter L.
Grantee Agency : University of Washington, Seattle, Washington
Title of Project : Duplicity Theory and the Stiles - Crawford Effect
Interest Category: Sensory-Motor Disorders and Rehabilitation
Grant Number : EY00788
Cost : \$20,659

Project Director : Mandell, Robert B.
Grantee Agency : University of California, Berkeley, California
Title of Project : Corneal Effects of Flexible Contact Lenses
Interest Category: Corneal Diseases
Grant Number : EY00966
Cost : \$25,990

Project Director : Margherio, Raymond R.
Grantee Agency : Wayne State University, Detroit, Michigan
Title of Project : Collaborative Diabetic Retinopathy Study
Interest Category: Retinal and Choroidal Diseases
Grant Number : EY01037
Cost : \$28,000

Project Director : Montgomerie, John Z.
Grantee Agency : Harbor General Hospital, Torrance, California
Title of Project : Candida Albicans Hematogenous Endophthalmitis
Interest Category: Corneal Diseases
Grant Number : EY01066
Cost : \$37,753

Project Director : Murch, Gerald M.
Grantee Agency : Portland State University, Portland, Oregon
Title of Project : McCollough Effect - Color Vision and Shape Perception
Interest Category: Sensory-Motor Disorders and Rehabilitation
Grant Number : EY00913
Cost : \$10,851

Project Director : Nolte, John F.
Grantee Agency : University of Colorado Medical Center, Denver, Colorado
Title of Project : Photoreceptor Interactions
Interest Category: Retinal and Choroidal Diseases
Grant Number : EY01155
Cost : \$29,749

Project Director : Norton, Thomas T.
Grantee Agency : Duke University, Durham, North Carolina
Title of Project : Neural Mechanisms of Developing Vision
Interest Category: Sensory-Motor Disorders and Rehabilitation
Grant Number : EY01085
Cost : \$26,755

Project Director : Papermaster, David S.
 Grantee Agency : Yale University, New Haven, Connecticut
 Title of Project : Rhodopsin Biosynthesis in Retina
 Interest Category: Retinal and Choroidal Diseases
 Grant Number : EY00845
 Cost : \$30,357

Project Director : Patz, Arnall
 Grantee Agency : Johns Hopkins University, School of Medicine,
 Baltimore, Maryland
 Title of Project : Studies of Retinal Ischemia
 Interest Category: Retinal and Choroidal Diseases
 Grant Number : EY01008
 Cost : \$74,303

Project Director : Peyman, Gholam A.
 Grantee Agency : University of Illinois, Chicago, Illinois
 Title of Project : Full Thickness Eyewall Resection and Uveal Melanoma
 Interest Category: Retinal and Choroidal Diseases
 Grant Number : EY01159
 Cost : \$25,314

Project Director : Peyman, Gholam A.
 Grantee Agency : University of Illinois, Chicago, Illinois
 Title of Project : Intravitreal Surgery Techniques
 Interest Category: Retinal and Choroidal Diseases
 Grant Number : EY01107
 Cost : \$40,147

Project Director : Pollack, Irvin P.
 Grantee Agency : Johns Hopkins Hospital, Baltimore, Maryland
 Title of Project : Constant Pressure Applanation Tonography
 Interest Category: Glaucoma
 Grant Number : EY01178
 Cost : \$22,065

Project Director : Proenza, Luis M.
 Grantee Agency : University of Georgia, Athens, Georgia
 Title of Project : Electrophysiology of Retinal Amacrine Cells in
 Vision
 Interest Category: Retinal and Choroidal Diseases
 Grant Number : EY00973
 Cost : \$32,268

Project Director : Reed, Dan W.
 Grantee Agency : Charles F. Kettering Foundation Research Laboratory
 Yellow Springs, Ohio
 Title of Project : Molecular Organization in Rod Outer-Segment Membranes
 Interest Category: Retinal and Choroidal Diseases
 Grant Number : EY00932
 Cost : \$14,780

Project Director : Rice, Stuart A.
 Grantee Agency : University of Chicago, Chicago, Illinois
 Title of Project : Visual Pigment Models: Photochemical Studies
 Interest Category: Retinal and Choroidal Diseases
 Grant Number : EY01056
 Cost : \$33,320

Project Director : Riekhop, F. Tempel
 Grantee Agency : University of Utah, Salt Lake City, Utah
 Title of Project : Collaborative Study of Diabetic Retinopathy
 Interest Category: Retinal and Choroidal Diseases
 Grant Number : EY01043
 Cost : \$44,000

Project Director : Shlaer, Robert M.
 Grantee Agency : Chicago Wesley Memorial Hospital, Chicago, Illinois
 Title of Project : Visualization of Regenerating Retinotectal Axons
 Interest Category: Sensory-Motor Disorders and Rehabilitation
 Grant Number : EY00961
 Cost : \$5,000

Project Director : Skavenski, Alexander A.
 Grantee Agency : Northeastern University, Boston, Massachusetts
 Title of Project : Eye-Position Information Processed in Frontal Cortex
 Interest Category: Sensory-Motor Disorders and Rehabilitation
 Grant Number : EY01049
 Cost : \$29,667

Project Director : Sparks, David L.
 Grantee Agency : University of Alabama, Birmingham, Alabama
 Title of Project : Eye Movement Control: The Role of Brain Stem
 Neurons
 Interest Category: Sensory-Motor Disorders and Rehabilitation
 Grant Number : EY01189
 Cost : \$30,194

Project Director : Spear, Peter D.
 Grantee Agency : Kansas State University, Manhattan, Kansas
 Title of Project : Neurophysiological Consequences of Visual Cortex
 Interest Category: Sensory-Motor Disorders and Rehabilitation
 Grant Number : EY01170
 Cost : \$19,065

Project Director : Stell, William K.
 Grantee Agency : University of California, Los Angeles, California
 Title of Project : Pathways for Color Vision in Retinas
 Interest Category: Retinal and Choroidal Diseases
 Grant Number : EY01190
 Cost : \$48,161

Project Director : Stuart, Ann E.
Grantee Agency : Harvard University, Boston, Massachusetts
Title of Project : Neural Mechanisms in Processing Visual Information
Interest Category: Sensory-Motor Disorders and Rehabilitation
Grant Number : EY01188
Cost : \$48,479

Project Director : Tasman, William S.
Grantee Agency : Wills Eye Hospital, Philadelphia, Pennsylvania
Title of Project : Collaborative Study of Diabetic Retinopathy
Interest Category: Retinal and Choroidal Diseases
Grant Number : EY01048
Cost : \$44,000

Project Director : Tiffany, John M.
Grantee Agency : University of Pennsylvania, Philadelphia, Pennsylvania
Title of Project : Surface Chemistry of the Cornea
Interest Category: Corneal Diseases
Grant Number : EY01067
Cost : \$26,505

Project Director : Tso, Mark O.
Grantee Agency : Universities Associated for Research and Education in Pathology, Inc., Bethesda, Maryland
Title of Project : Pathology and Pathogenesis of Edema of the Optic Disc
Interest Category: Retinal and Choroidal Diseases
Grant Number : EY01163
Cost : \$35,745

Project Director : Van Heuven, Wichard A.
Grantee Agency : Albany Medical College of Union University, Albany, New York
Title of Project : Collaborative Study of Diabetic Retinopathy
Interest Category: Retinal and Choroidal Diseases
Grant Number : EY01035
Cost : \$44,000

Project Director : Watkins, W. David
Grantee Agency : University of Colorado Medical Center, Denver, Colorado
Title of Project : Enzymes of Vision: Retinal Vitamin A Metabolism
Interest Category: Retinal and Choroidal Diseases
Grant Number : EY01081
Cost : \$29,001

Project Director : Watzke, Robert C.
Grantee Agency : University of Iowa, Iowa City, Iowa
Title of Project : Collaborative Study of Diabetic Retinopathy
Interest Category: Retinal and Choroidal Diseases
Grant Number : EY01038
Cost : \$44,000

Project Director : White, Richard H.
 Grantee Agency : University of Massachusetts, Boston, Massachusetts
 Title of Project : Physiology of Larval Mosquito Photoreceptors
 Interest Category: Retinal and Choroidal Diseases
 Grant Number : EY01012
 Cost : \$28,210

Project Director : Witkovsky, Paul
 Grantee Agency : Columbia University, College of Physicians and Surgeons, New York, New York
 Title of Project : Correlation of Structure and Function in the Retina
 Interest Category: Retinal and Choroidal Diseases
 Grant Number : EY01063
 Cost : \$29,630

Project Director : Yankeelov, John A., Jr.
 Grantee Agency : University of Louisville Foundation, Inc., Louisville, Kentucky
 Title of Project : Covalent Control of Cornea - Damaging Collagenase
 Interest Category: Corneal Diseases
 Grant Number : EY00969
 Cost : \$42,500

Project Director : Yguerabide, Juan
 Grantee Agency : University of California, San Diego, California
 Title of Project : Conformational Dynamics of Excitable Membranes
 Interest Category: Retinal and Choroidal Diseases
 Grant Number : EY01177
 Cost : \$24,138

Project Director : Zwaan, Johan
 Grantee Agency : Children's Hospital Medical Center, Boston, Massachusetts
 Title of Project : Development and Growth of the Lens
 Interest Category: Cataract
 Grant Number : EY01002
 Cost : \$58,446

SOCIAL AND REHABILITATION SERVICE PROJECTS

CURRENTLY SUPPORTED

RD-2406 New Number 14-P-55034

Title of Project: Strengthening Services for the Visually Handicapped
Through the Application of Standards

Grantee: National Accreditation Council for Agencies Serving
the Blind and Visually Handicapped
79 Madison Avenue
New York, New York 10016

Cost: \$90,203

RD-3422 New Number 14-P-55237

Title of Project: Effect of Photocoagulation on Diabetic Retinopathy
in Rehabilitation of the Blind

Grantee: Southwest Eye Foundation
Medical Center Professional Building, Suite 800
6436 Fannin
Houston, Texas 77025

Cost: \$15,000

RD-3109 New Number 14-P-55282

Title of Project: Tactile Television System

Grantee: Institute of Medical Sciences
Clay and Webster Streets
San Francisco, California 94115

Cost: \$95,000

U.S. VETERANS ADMINISTRATION, OFFICE OF ACMD FOR
RESEARCH AND DEVELOPMENT, RESEARCH ON AIDS
FOR THE BLIND

Eugene F. Murphy, Ph.D.
Director

Prepared by: Howard Freiburger
Electronics Engineer

Research Center for Prosthetics
Veterans Administration
252 Seventh Avenue
New York, N. Y. 10001

This summary was prepared March 15, 1974, for use in the 1973 issue of BLINDNESS. The data are supplementary to similar materials appearing in earlier issues of the Annual. Only active projects are mentioned here. The "Total Cost" entry shows the cumulative cost from the inception date indicated to January 15, 1974. The "FY'72" and "FY'73" costs are the amounts expended during those Federal Fiscal Years. These costs, representing reimbursements for the research work, are not always the same as obligations of funds to be made available for the projects.

PROJECT NUMBER	IDENTIFICATION DURATION AND COST	ACTIVITY ADDRESS	PRINCIPAL PERSONNEL	PURPOSE
V101 (134) P- 71	Outputs for Reading Machines 4/1/57 to present Total Cost: \$783,119 FY'72 Cost: \$84,125 FY'73 Cost: \$130,097	Haskins Lab- oratories, Inc., 270 Crown Street, New Haven, Connecticut 06510	F.S. Cooper, Ph.D. P. Nye, Ph.D. J. Gaitenby	To study audible outputs for reading machines for the blind and to develop the psycho- acoustic, linguistic, phonetic, electronic, and mechanical details necessary to achieve a first- rate output i.e., some form(s) of machine-made speech not too different from natural speech. By early 1974 an optical-character- recognition (OCR) input device accept- ing typewritten material (OCR font), a processor using a stored dictionary for grapheme-to-phoneme conversion and a speech synthesizer to generate the output, were demon- strated to produce generally understandable

PROJECT NUMBER	IDENTIFICATION DURATION AND COST	ACTIVITY ADDRESS	PRINCIPAL PERSONNEL	PURPOSE
				speech. Relaxation of input constraints, further improvements in output quality, and establishment of the system as a centrally-located quick-response reading service are the next steps to be taken.
V101 (134) P-75	Sensory Aids Subcommittee 3/31/65 to present Total Cost: *\$66,600 FY'72 Cost: *\$17,400 FY'73 Cost: *\$20,000 *Estimated	National Academy of Sciences, 2101 Constitution Ave., Washington, D.C. 20037	N. Guttman, Ph.D. Chairman A.B. Wilson, Jr., Exec.Director, CPRD G. Haas, Ph.D. Staff Engineer CPRD	To provide advisory, program review, and consulting services regarding research programs in aids for the blind and for the deaf. To arrange meetings of specialists in appropriate fields and to publish minutes.
V101 (134) P-68	Personal-Type Reading Machines 9/12/58 to present *Total Cost: \$1,420,272 FY'72 Cost: \$135,707	Mauch Laboratories, Inc., 3035 Dryden Road, Dayton, Ohio 45439	H. A. Mauch G. C. Smith	To develop a reading machine for the blind which is relatively portable, capable of independent use at higher reading speeds than possible with the optophone, and suffi-

PROJECT NUMBER	IDENTIFICATION DURATION AND COST	ACTIVITY ADDRESS	PRINCIPAL PERSONNEL	PURPOSE
	FY'73 Cost: \$151,726 *Includes \$74,905 for 30 Visotoners and 10 Viso- tactors de- livered to VA in 1969, and \$49,200 for 50 Stereotoners delivered to VA in 1973.			ciently low in cost that it may be acquired by an individual blind person. An improved home-type reading machine with OCR input and spelled speech out- put was demonstrated in breadboard form in early 1974. This unit incor- porates multifont capabilities and rea- sonable insensitivity to line tracking errors. The Stereotoner, a polyphonic direct translation reading machine for the blind, is now available and is in use in VA programs.
V101 (134) P- 124	Obstacle De- tectors for the blind 6/6/61 to present *Total Cost: \$418,619 FY'72 Cost: \$22,611 FY'73 Cost: \$38,890	Bionic Instruments, Inc. 221 Rock Hill Road, Bala Cynwyd, Penna. 19004	J.M. Benjamin D.R. Bolgiano N. Ali A. Schepis	To develop a typhlo- cane employing materials of superior mechanical properties, and fitted with three gallium arsenide laser systems: one to probe space ahead at the head and shoulders height to give warning of im- pending overhanging

PROJECT NUMBER	IDENTIFICATION DURATION AND COST	ACTIVITY ADDRESS	PRINCIPAL PERSONNEL	PURPOSE
	*Includes \$45,000 for 10 Laser Typhlocanes delivered to VA in 1969. Does not in- clude funds for work done prior to 1961 by predecessor firms under earlier contracts but em- ploying some of the same people.			obstacles; a second to range ahead to give early warning through a tactile indicator of obstacles beyond cane reach; the third to monitor the terrain to give early warning of large dropoffs like stairwells and platform edges. Building on the experience from earlier models the Model C-5 Laser Typhlocane was first designed in 1971, was subject to design changes occasioned by inputs from veterans and orientation and mobility specialists, was built in 1973, and delivered to VA in a quantity of 35 units in March, 1974. These will be used to replace older laser canes used by certain veterans, and to deploy this new device to other veterans as an element in their blind reha- bilitation programs.

PROJECT NUMBER	IDENTIFICATION DURATION AND COST	ACTIVITY ADDRESS	PRINCIPAL PERSONNEL	PURPOSE
V101 (134) P- 123	Correspondence Courses - Training of Blind and/or Deaf-Blind 8/18/67 to present Total Cost: \$31,334 FY'72 Cost: \$4,378 FY'73 Cost: \$6,367	Hadley School for the Blind, 700 Elm Street, Winnetka, Illinois 60093	D.W. Hathaway M. Butow	To develop, validate, and administer corre- spondence courses for training of blind and deaf-blind persons in the use of personal- type reading aids. To support VA programs by providing training at the School in reading machines, by cooperating with other contractors, and by developing skills with- in the non-veteran community to improve services to veterans.
V101 (134) P- 163	Reading of Print Materials by the Blind 5/1/73 to present Total Cost: \$23,913 FY'73 Cost: \$3,287	American Institutes for Research, P.O. Box 1113, Palo Alto, Calif. 94302	R.A. Weisgerber, Ed.D. M.N. Danoff, Ph.D. A.B. Chalupsky, Ph.D.	To evaluate impar- tially new reading devices such as Stereo- toner, and to develop innovative instruc- tional strategies to facilitate the mastery of these new devices.
INTRA-VA	Staff work in VA Research Center for Prosthetics	Research Center for Prosthetics 252 Seventh	E.F. Murphy, Ph.D. H. Freiburger	The work of the Center includes INFORMATION DISSEMINATION (papers in professional

PROJECT NUMBER	IDENTIFICATION DURATION AND COST	ACTIVITY ADDRESS	PRINCIPAL PERSONNEL	PURPOSE
		Avenue, New York, N.Y. 10001		journals, correspondence with others in the field, maintenance of a reference collection, bibliographic activity, publication of a bulletin, arranging conferences, presenting talks), CONTRACT SUPERVISION, PLANNING, SUPERVISION OF CLINICAL APPLICATION PROGRAMS, and EDUCATIONAL and TRAINING activities.
INTRA-VA	Clinical Application Program in Reading and Mobility Aids for the Blind 7/1/67 to present Total Cost: \$150,094 FY'72 Cost: \$31,300 FY'73 Cost: \$37,133	Central Rehabilitation Section for Visually Impaired and Blinded Veterans, VA Hospital, Hines, Ill. 60141	J.D. Malamazian H.L. Lauer L. Farmer J. Whitehead	To transfer research results to clinical practice as rapidly as feasible; to train veterans and staff in the use of new devices; to obtain information about the devices to aid in improving new designs. Work on the Stereotoner, Laser Typhlocane, Optacon, Ultrasonic Spectacles, and LR Pathsounder is underway.

PROJECT NUMBER	IDENTIFICATION DURATION AND COST	ACTIVITY ADDRESS	PRINCIPAL PERSONNEL	PURPOSE
INTRA-VA	Clinical Application Program in Reading and Mobility Aids for the Blind 12/1/70 to present Total Cost: \$96,617 FY'72 Cost: \$32,434 FY'73 Cost: \$36,236	Western Blind Rehabilitation Center, VA Hospital, Palo Alto, Calif. 94304	L.E. Apple W. Ekstrom R.R. Bennett D. Cooper	To transfer research results to clinical practice as rapidly as feasible; to train veterans and staff in the use of the new devices; to obtain information about the devices to aid in im- proving new designs. Work on the Stereo- toner, Laser Typhlo- cane, Ultrasonic Spectacles, Night Vision Aid, and LR Path- sounder is in progress.
INTRA-VA	Clinical Application Program in Reading and Mobility Aids for the Blind 7/1/72 to present Total Cost: \$58,801 FY'73 Cost: \$33,300	Eastern Blind Rehabilitation Center, VA Hospital, West Haven, Conn. 06516	G.M. Gillispie W. De l'Aune, Ph.D. P. Gadbaw C. Lewis	To transfer research to clinical practice as rapidly as possible; to train veterans and staff in the use of new devices; to obtain information about the devices to aid in improving designs. Work on the Stereotoner, Optacon, and auditory cues in mobility, assessment of quality of synthetic speech, low vision aids, and compressed speech is underway.

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THE MEANING OF BLINDNESS: ATTITUDES TOWARD
BLINDNESS AND BLIND PEOPLE

By Michael E. Monbeck

(Bloomington and London: Indiana University Press,
1973. Pp. 214, notes bibliography, index. \$6.95.)

Reviewed by Walter Hendrickson
(Jacksonville, Illinois)

This small book is more closely packed with information and sources from which it is derived than any book on the blind that I know.

Mr. Monbeck, a sighted man who is an editor of New Outlook for the Blind, has worked for the American Foundation for the Blind for ten years. During this time he has read a great deal about the relations of sighted persons with the blind, and he shares his findings with his readers.

He gives a very condensed account of the literature about the blind from ancient times to the present, concerning the social and individual attitudes of sighted persons toward the blind. Very little of the author's personal attitudes enter into his book; but they will be mentioned below. His bibliography contains 300 entries of books and articles and is itself thus a very comprehensive compilation of works on attitudes toward the blind.

Mr. Monbeck begins with a succinct description of the historical attitudes toward the blind, but the principal emphasis is on the psychological and psychosocial investigation of blindness and the attitudes of sighted people toward the blind. Incidentally, there is some mention of the attitudes of the blind toward themselves and toward sighted people.

I was so impressed with the thoroughness of Mr. Monbeck's study that I did a hasty chronological breakdown of the items in his bibliography. Of the about 300 entries, there were 40 citations of articles or books that were published before 1930; 13 from 1930 to 1940; 28 from 1940 to 1950; 85 from 1950 to 1960; 116 from 1960 to 1970; and 7 from 1970 to the present.

The large majority of the recent citations are concerned with research that has taken place since 1950 in the areas of social and individual attitudes and is perhaps best characterized by the pioneering of Gordon W. Allport and his disciples in the area of interpersonal relationships. This research is expertly summarized by Mr. Monbeck, and he comes up with the conclusion that the relationships of sighted persons to blind persons is not, in general, a healthy or even a correct one. In

his last chapter the author does conclude that enough research has been done to determine without much doubt that a much better relationship can be brought about by educating sighted people to accept the fact that "blind people are more similar to, than different from, sighted people" (p. 150). There are good and sufficient methods for such instruction, and they are being used. The difficulty is that historical and personal prejudices persist in spite of factual information. Those who would change their attitude or that of other sighted persons toward the blind must also accept the psychological or inner meaning of the reasons for the attitude. Mr. Monbeck says, "to ignore or to deny or repress the symbolic, inner, psychologically 'true' meaning, as has been done in the past, only means that the influence of consciousness is relinquished and that this side is allowed to continue reinforcing the negative attitudes and stereotypes" (p. 157). Therefore subjective attitudes that lie in the myths and fears of mankind must be brought into the open. Thus a two-pronged attack must be mounted to make fundamental changes in attitudes, and this is not easy. Perhaps it can best be done by those individuals "who have undergone these personal changes themselves" (p. 159).

It is my conclusion that this is a good book, although it is difficult reading for laymen such as myself who are not psychologically oriented. Writing the book must have been hard work for Mr. Monbeck, but he triumphed over his material. As the author thinks that he has achieved good attitudes toward blind people, so I think that I have a most healthy and happy attitude toward my blind friends, and I now know why.

I think that workers with the blind, whether they be teachers, social workers, or psychologists, whether they are sighted or blind, will profit from reading this book.

AAWB
Blindness 1973

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